

MISSOURI. Conservationist

VOLUME 71, ISSUE 11, NOVEMBER 2010 • SERVING NATURE & YOU



Striking the Right Balance

Most Missourians understand and accept the need for rules that ensure wise use of Missouri's natural resources. They understand that unregulated harvest led to the unacceptable exploitation of

fish and game and the near loss of deer and turkey from the state by the early decades of the twentieth century. When Missourians voted in 1936 to amend the state constitution and form the Conservation Commission, it was to reverse the precipitous decline of wildlife populations and the exploitation of natural resources that included degradation of forests and streams. This was accomplished through the judicious use of regulation. Regulation is essential to conservation and the two are inseparable. Conservation is the wise use of natural resources, and wise use requires restraints on activities that threaten the continued existence of the natural environment.

The process of formulating regulations is a partnership with Missouri's citizens who have trusted us to conduct research and use the best available information to sustain our natural resource heritage. Citizen input is vital to reaching good decisions and responding to the desires of resource users. Those surveys to which you have responded over the years, public meetings that you attended, or individual comments you provided have helped us to address your desires while still protecting the resource.

We have the benefit of clear hindsight to see the results of unregulated use of wildlife and natural resources. Absence of regulation is one extreme. The other extreme is to overregulate, so that citizens are frustrated and discouraged from participating in outdoor traditions. The Department's goal



is to strike the correct balance between those two extremes, so that we permit as much public use of natural resources as is consistent with the state of those natural resources, while avoiding the harassment of the hunter, angler and resource

user whenever possible. Our goal is to keep seasons as long as possible, to be first restrictive on methods, next on limits, and to approach shortened seasons as a last resort. Those ideas were voiced by former Director William Towell more than 40 years ago and they still guide us today.

We are now blessed with more information on the condition of natural resources and how to manage them than we've ever

had before. Natural resource management that was once an art is now a science. More accurate information allows us to make better management decisions. As increasing public demands are placed on a limited resource base, we also have new tools that improve our access to public opinions on our management. The judicious use of regulation remains a critical conservation tool. In exercising that authority to regulate, our goal remains to strike that balance between the desires of Missouri's citizens and our mandate to sustain the natural resources, for today and the future.

Tom Draper, deputy 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.*



FEATURES

- 8 **Tips for a Safe and Ethical Deer Season**
It's one of the best seasons of the year—make it a safe one.
- 12 **Oh Island, Where Art Thou?**
by Jim Low
One family's saga captures the ebb and flow of Missouri's historic wetlands.
- 18 **Shepherd of the Hills**
by Francis Skalicky, photos by David Stonner
A visit to this popular Branson destination reminds Missourians to be thankful for their freedom while they are enjoying the bounty of our natural resources.
- 22 **Missouri Hatcheries: Growing Success**
by Chris Vitello and James Civiello
Using science and stocking to support our angling and natural communities.

Cover: A male white-tailed deer by Noppadol Paothong.

Above: Wounded veterans take part in a Wounded Warrior deer hunt in Jasper County. Joe Fox hunts from a special blind in a golf cart to enable him to use his wheelchair while hunting. By David Stonner

MISCELLANY

- 2 **Letters**
- 4 **News & Events**
- 5 **Ombudsman**
- 28 **Plants & Animals**
- 30 **Places To Go**
- 32 **Hunting and Fishing Calendar**
- 32 **Contributors**
- 33 **Agent Notes**

FORESTKEEPERS

We enjoyed Gus Raeker's article [Get Into the Forest!;

September] but were disappointed that he did not mention the Missouri Forestkeepers Network in the section on volunteering. The program is jointly sponsored by Forest ReLeaf of Missouri and the Department of Conservation. Volunteers work to protect, sustain and enhance Missouri's forest resources through monitoring, advocacy and education. There are currently more than 2,000 volunteers statewide. You can participate as an individual, family, school group or organization. Forestkeepers observe and report on the

condition of forested areas as well as trees in lawns, parks and city streets. For more information, check www.forestkeepers.org or call 1-888-936-7378.

Bob and Pat Perry, charter members, Rolla

DRESS FOR THE HUNT

Very nice article on fall mushrooms [Fall for Wild Mushrooms; October]; however, I would add two tips for mushroom hunting:

1) Wear hunter orange. Hunting mushrooms in the fall and spring can coincide with hunting seasons. Be safe by wearing hunter orange.

2) Even if given prior permission to hunt on private land, check with the owner or person responsible for granting permission, to make sure no game hunters are also on the land that day. This is important for safety and also out of courtesy to the hunters. I don't hunt myself, but it is must be frustrating to a hunter to be waiting for

a turkey or deer and have someone come hiking through the woods and scare potential prey.

*John Morgan, Ag Dept./FFA
Lexington R-5 School District, Lexington*

PRAIRIE PRIDE

It was with great pleasure that I opened my recent edition of the *Conservationist* [October] and spotted a greater prairie-chicken photo, followed up by the Grand River Grassland article.

I suppose you could call me a prairie enthusiast—we purchased 121 acres in the middle of the Mystic Plains COA several years ago to help support the effort up there, and we are active members of the Missouri Prairie Foundation (www.moprairie.org).

What caught my eye in the "Note to Our Readers" was that the Missouri Department of Conservation owns 1.7 percent of Missouri's land. Hurray! We need all the conservation land we can get. I know the Department has been intensively working with private landowners (our private land conservationist, John Murphy, has been simply fantastic) for prairie management.

Please keep up the great articles!

Kevin N. Carpenter, via Internet

STAY IN TOUCH!

Having grown up in Missouri, but now living in New York, I want to say how much I enjoy reading the *Missouri Conservationist*. I used to subscribe to a New York magazine, but it is not the same. You have two of the best photographers that I have seen at capturing the outdoors as a normal resident would experience.

As an avid fly fisher, I really loved the article *Kayak Angling* [June]. So much of that information can be used here in New York also.

Now that I live so far away, the *Missouri Conservationist* keeps me in touch with home.

Thomas Wommack Batavia, NY



Reader Photo

BUCK SHOT

Abe Stamper of Springfield captured this image of a White-tailed deer at Lake Springfield. Stamper said that is a favorite location for his family since they always see lots of wildlife there. "I got started in photography primarily to shoot my daughter's soccer games," said Stamper, "however, I was an avid hunter for many years, and quickly started to enjoy taking pictures of deer and other wildlife as well." Stamper said he likes to take pictures of any type of wildlife from deer to dragonflies.

Editors' note: Nearly 13,000 people who do not live in Missouri have subscriptions to the Conservationist. Out-of-state subscriptions are \$7, and out-of-country subscriptions are \$10. The online version is free of charge for everyone, everywhere, at www.MissouriConservation.org/conmag.

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The *Missouri Conservationist* (ISSN 0026-6515) is the official monthly publication of the Missouri Department of Conservation, 2901 West Truman Boulevard, Jefferson City, MO (Mailing address: PO Box 180, Jefferson City, MO 65102.) Subscription free to adult Missouri residents; out of state \$7 per year; out of country \$10 per year. Notification of address change must include both old and new address (send mailing label with the subscriber number on it) with 60-day notice. Preferred periodical postage paid at Jefferson City, Mo., and at additional entry offices. Postmaster: Send correspondence to Circulation, PO Box 180, Jefferson City, MO 65102-0180. Phone: 573-522-4115, ext. 3856 or 3249. Copyright © 2010 by the Conservation Commission of the State of Missouri.

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Printed with soy ink



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Phone: 573-522-4115, ext. 3856 or 3249
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Conservationist online services: Subscribe to the magazine, update your mailing address, or sign up to receive an e-mail when the latest issue is available online at www.MissouriConservation.org/15287

Cost of subscriptions: Free to Missouri households
Out of State \$7 per year
Out of Country \$10 per year

Please allow 6–8 weeks for delivery of your first issue.

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Kid's site: www.XplorMo.org
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Conservation Commission Approves Elk Restoration Plan

At their October meeting the Missouri Conservation Commission approved an elk restoration plan that includes health protocols, herd management guidelines and habitat management recommendations. Releases of elk could begin as soon as early 2011.

The plan (available at www.MissouriConservation.org/node/10123) calls for releasing wild elk in a 346-square-mile (221,509 acres) elk restoration zone in parts of Shannon, Carter and Reynolds counties. The Conservation Department selected this limited restoration zone because of extensive public lands, suitable habitat, low road density, minimal

agricultural activity and landowner support.

To ensure that Missouri's wildlife and livestock remain healthy, the plan includes health testing guidelines developed by the Missouri departments of Conservation and Agriculture. "The developed animal health testing protocol has been proven in other states and meets or exceeds health testing requirements to move livestock or captive elk," said State Veterinarian Dr. Taylor Wood.

The plan includes procedures to address elk that leave the restoration zone onto private land where they are not welcome and hunting to manage the herd in future years. All released elk will be fitted with radio collars to permit tracking their movements.

The plan calls for continued habitat management on public lands and cost-share incentives for private landowners wanting to attract elk to their land in the restoration zone. Since 2000, there have been significant habitat improvements on public land in the restoration zone that will benefit elk.

Organizations including the Rocky Mountain Elk Foundation and the Appalachian Wildlife Foundation have committed to contributing

Factors working to ensure elk will remain in the restoration area:

- Limited number of elk will be released,
- Limited area with quality habitat,
- Elk will be radio collared and closely monitored,
- Elk in eastern states tend to be non-migratory and utilize available habitat,
- 79 percent of the land is open to public access,
- The Department is committed to addressing elk in unwanted locations outside the restoration zone including harassment techniques, trapping and relocating and/or euthanizing elk, and
- Hunting is proposed to be implemented as soon as possible after the elk become established

The Department is committed to continuing landscape resource management in the Ozarks for:

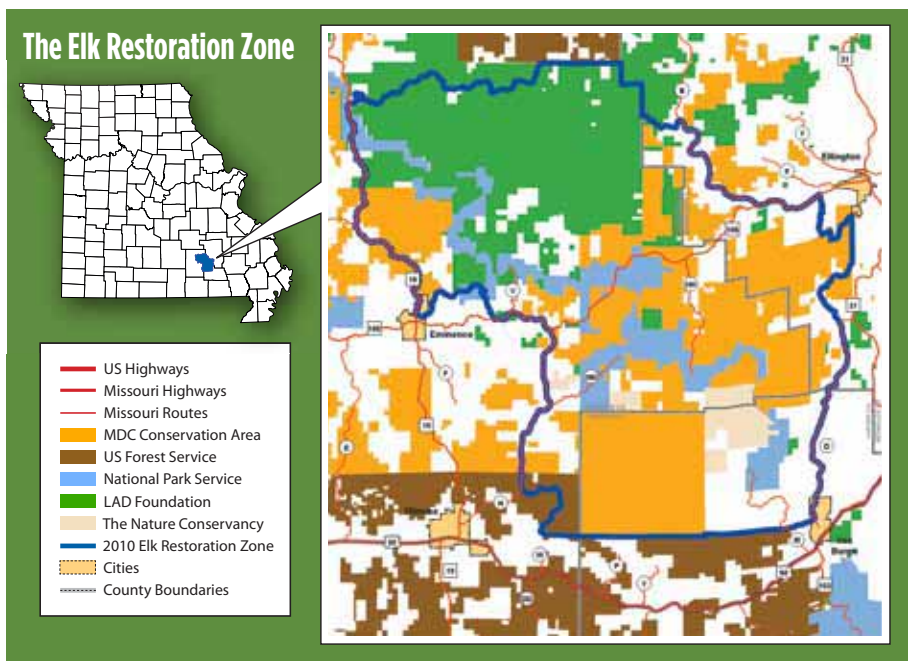
- Natural community restoration and to sustain forest health,
- Restoration of wildlife habitat for multiple species, and
- Provide diverse outdoor recreational opportunities for citizens

financial resources and volunteer time to help with elk restoration in Missouri.

Director Robert Ziehmer said the Department has actively engaged citizens and organizations to gather input on elk restoration. "A key component of Missouri's plan is the defined restoration zone. Given habitat within this zone, the limited number of elk to be released, established health protocols, monitoring commitment and solid citizen/landowner support, implementation will provide natural resource and recreational benefits," said Ziehmer.

Elk restoration programs in Arkansas, Kentucky, Pennsylvania and Tennessee have successfully restored limited elk populations with economic benefits through wildlife viewing and hunting. Jim Smith, owner of Cross Country Trail Ride in Eminence, said restoring elk to the Missouri Ozarks will help his business by extending the tourism season. "The natural beauty, abundant wildlife and crystal-clear streams draw people to the Ozarks. Restoring elk will be an extra attraction."

Elk are native to the Show-Me State but were gone by the mid-1800s, due to unregulated hunting and habitat changes.



Eminence Gets Conservation Boost

Boaters will have better access to the Current River at Eminence City Park, thanks to a grant from the Conservation Department.

At its August meeting, the Conservation Commission approved \$353,846.51 for the cooperative project with the City of Eminence. The grant will pay for a 16-foot-wide concrete boat ramp, a 32-foot-wide concrete canoe ramp, concrete access roads, walkways and parking lots, restrooms and security lighting. The City of Eminence will provide demolition and removal of existing facilities.

Three-quarters of the Conservation Department's share of project funding will come from the Federal Aid in Sport Fish Restoration Program,

also known as the Dingell-Johnson Fund. "D-J" money comes from a federal tax on fishing equipment and marine fuels.

The Dingell-Johnson Act of 1950 is similar to the Pittman-Robertson Federal Aid in Wildlife Restoration Act of 1937, which established a federal excise tax on firearms and hunting equipment. Hunters and anglers were instrumental in passage of both laws to fund state fisheries and wildlife management programs.

The grant is part of the Conservation Department's Community Assistance Program (CAP). CAP grants help communities build or improve fishing facilities. For more information about CAP grants, visit <http://bit.ly/9lhk1h>, or call the nearest Conservation Department regional office.

Sedalia Office is an ENERGY STAR

The Conservation Department's new office in Sedalia has earned the U.S. Environmental Protection Agency's ENERGY STAR Award. It joins the Northeast Regional Office in Kirksville, which received the same recognition earlier this year.

The awards recognize the Conservation Department's efforts to incorporate energy-efficient technologies and practices into facility construction, operation and maintenance. These include geothermal heating, maximizing the use of natural daylight, efficient fluorescent lighting, an outside air recovery unit, window tinting, good insulation and a commitment by staff to practice energy conservation.

(continued on Page 6)



ASK THE OMBUDSMAN

Q: I recently caught several crappie from the Lake of the Ozarks. When I was cleaning them, I noticed that some had egg sacs with eggs. Do crappie spawn in the fall?

A: It is not unusual to find immature eggs in female crappie or other fish at this time of the year. Although greatly diminished in size outside of the spawning season, female fish retain their egg sacs (ovaries) that contain eggs that will mature in the future. In crappie, those eggs will be held until spawning in late March or April of next year. The mature eggs will be located near the center of the ovary, with progressively less-mature eggs toward the outside. The spawning will begin with the right combination of day length, temperature and water level in the lake.

Q: Can you tell me the real name of a tree that my family calls a "cigar tree"?

A: "Cigar tree" is one of the common names for trees in the genus *Catalpa*. Other common names include catalpa, catawba, Indian bean, and Indian cigar tree. As far as I can tell, the name cigar tree refers to the long, brown,



Catalpa sphinx moth caterpillar

seed-bearing pods that the tree produces each year. Growing up to 20 inches long and about 3/8-inch thick, they don't much remind me of a cigar. The trees are best known as the host plants for the catalpa sphinx moth caterpillar, called the catalpa worm. The caterpillar is popular as fish bait and the trees are sometimes planted to attract catalpa worms. Catalpa trees have also been commonly planted as ornamental shade trees but are seldom used for that purpose today.

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 e-mail him at Ombudsman@mdc.mo.gov.

To qualify for ENERGY STAR certification, buildings must perform in the top 25 percent of similar facilities nationwide for energy efficiency. The MDC facility joins only 28 other office buildings in Missouri to receive ENERGY STAR designation. Commercial buildings that earn the ENERGY STAR award use an average of 35 percent less energy than typical buildings.

The emphasis on energy efficiency at Conservation Department facilities is consistent with Gov. Jay Nixon's April 2009 executive order directing state agencies to reduce energy costs by 20 percent by 2018.

Piedmont Man is Logger of the Year

Forest conservation is more than just good business to Logger of the Year Matt L'Heureux; it is a way of life.

L'Heureux's conservation ethic is so strong he received three logger-of-the-year nominations. MDC foresters in the Poplar Bluff area noted the Piedmont forester's remarkable ability to move logs around a harvest site without damaging the soil or remaining trees.

"It was an eye-opener to see someone able to maintain normal production with a large grapple skidder and do very little damage to the residual

stand," said Resource Forester Mark Pelton.

Resource Forester Becky Fletcher noted L'Heureux's careful observance of forestry best-management practices, even under the most difficult conditions. As an example, she pointed to L'Heureux's work on a salvage timber sale at Amidon CA in Madison County. Trees knocked down by high winds made work nearly impossible in some areas, yet the logger of the year met the challenge.

"Matt is very light on the land," said Fletcher. "He shuts himself down during wet times and has a system for the freeze/thaw cycle. He gets to the site early in the morning and does his skidding until the ground starts to thaw in the sun. Then he parks the skidder and he and his crew chainsaw for the rest of the day. He is very careful about ruts and keeping the roads and skid trails in good condition. One of the roads is now in better condition than when he started."

Forestry District Supervisor Jason Jensen expressed admiration for L'Heureux's skill with a chainsaw.

"He truly understands that how the trees are felled has a direct impact on the amount of residual damage resulting from skidding," he said.

L'Heureux received his award from Forest Management Chief John Tuttle at the Missouri Forest Products Association (MFPA) meeting at Lake of the Ozarks in June. He received a framed certificate and a Stihl chainsaw.

Candidates for the Logger of the Year Award must have completed the Professional Timber Harvester's Training Program. For more information, contact the MFPA, 611 East Capitol Ave., Suite 1, Jefferson City, MO 65101, 573-634-3252, moforest@moforest.org, or visit www.moforest.org.

Sight in Deer Rifles on MDC Ranges

You still have time to sight in rifles before the November firearms deer season, and dozens of conservation areas around the state provide safe, legal facilities for this important task. Target shooting on conservation areas is permitted only on approved shooting ranges. The Conservation Department maintains unstaffed shooting ranges on conservation areas in 75 counties and staffed shooting ranges at another five locations. Facilities at unstaffed ranges vary widely. Some are as simple as earthen berms designed to provide safe backstops for shooting. Others are handi-



Federal Funds Provide Share the Harvest Stimulus

Funding from the American Recovery and Reinvestment Act (ARRA), combined with dollars from state and local sponsors, could enable hunters to help feed more than twice as many needy Missourians this year.

Last year, hunters donated more than a quarter million pounds of venison to charities through Share the Harvest (STH). STH programs across the state are organized by local citizens who bring together hunters, charities and meat processors to put lean, high-protein meat on the table for those in need.

In September, Gov. Jay Nixon announced that a portion of Missouri's ARRA funds will go toward food programs that support low-income children and seniors. Gov. Nixon has made additional tools available to increase the number of meat processors participating in STH, enabling food banks to leverage the federal stimulus money for even greater benefit to needy Missourians.

STH is administered by the Missouri Department of Conservation and the Conservation Federation of Missouri (CFM). Gary Van De Velde, chairman of CFM's Share the Harvest Committee, said he hopes to increase the number of deer donated through STH to more than half a million pounds this year.

To learn how to donate deer through STH, call 573-634-2322, e-mail mofed@socket.net, or visit www.MissouriConservation.org/node/2544.

cap-accessible, have multiple covered shooting benches, target holders and pit privies. To find one near you, visit www.MissouriConservation.org/node/6209.

8 Plead Guilty in Deer-Dogging Case

Seven men from Doniphan and the surrounding area have entered guilty pleas in a federal case involving a conspiracy to hunt deer illegally in the Mark Twain National Forest with the aid of dogs and all-terrain vehicles. The eight will pay fines ranging from \$500 to \$1,500.

U.S. District Court documents show the defendants used radio-location dog collars, enabling them to track the location of deer being pursued by the dogs. They also used marine-band radios to evade law enforcement officers by transmitting the locations of Missouri conservation agents and the location of co-defendants, dogs and deer.

Each defendant pleaded guilty to conspiracy to illegally hunt deer in the Mark Twain National Forest by utilizing dogs to assist with the hunt between November 14, 2008, and November 25, 2008, all in violation of 16 U.S.C. §§ 3372(a)(1) and 3373(d) (2). This charge carries a maximum penalty of one year in prison and/or fines up to \$100,000.

This case was investigated by the Missouri Department of Conservation and U.S. Fish and Wildlife Service.

Give the Gift of Nature This Year

Looking for holiday gifts with lasting value? Try the Conservation Department's Nature Shop.

Where else can you get a gift that will delight the eye and inform the mind of outdoorsy loved ones every day of the year? The 2011 Natural Events Calendar does all that and more for just \$7, plus shipping and sales tax, where applicable.

Another great buy is *Missouri's Wild Mushrooms: a guide to hunting, identifying and cooking the state's most common mushrooms*. The 185-page, large-format book includes beautiful color photos and detailed information about edibility, habitat and fruiting period of dozens of mushrooms. Also included are mouth-watering recipes and tips for preserving mushrooms. At \$14, you will not find a bargain like this anywhere.

For children on your holiday shopping list, check out *Show-Me Herps: An uncommonly colorful guide to 50 cool amphibians and reptiles in*

Did You Know?

Here's just a few examples of how MDC strives to offer world-class service to Missouri citizens.

MDC Public Shooting Ranges

» **FIVE** staffed shooting ranges provide safe and inviting places to practice shooting skills.

- 1) **Busch** near Defiance
- 2) **Lake City** near Grain Valley
- 3) **Andy Dalton Shooting Range** near Bois D'Arc
- 4) **Parma Woods** near Parkville
- 5) **Jay Henges** near High Ridge

- » More than **52,000** visitors use the Busch Shooting Range annually.
- » More than **130,000** visitors attended programs or practiced firearms and archery shooting at the five staffed shooting ranges this past year alone.
- » More than **75** unstaffed shooting ranges are maintained by MDC throughout the state for citizens to sharpen their shooting skills. To learn more about our shooting ranges, visit www.MissouriConservation.org/node/6209.

Missouri. This pocket-sized, 152-page guide has captivating color illustrations of snakes, skinks, lizards, turtles, salamanders, frogs and toads, along with a wealth of information about where and how they live and how they affect people's daily lives. Few things you can buy for \$7.95 are so likely to kindle a lifelong interest in nature.

You can see the full selection of books, greeting cards, DVDs, CDs and more at www.mdcNatureShop.com. If you still have the October *Conservationist*, check out the Nature Shop section. Order online or by calling toll-free 877-521-8632. Many Nature Shop items also are available at conservation nature centers.

At a loss for a gift for the hunter or angler who has everything? Consider a lifetime permit. The Resident Lifetime Small Game Hunting Permit costs as little as \$35 for Missouri hunters age 60 or older. The same permit is an amazing bargain at \$275 for Missouri residents age 15 and younger. Lifetime Conservation Partner Permits, which include hunting and fishing privileges, start at \$70 for Missouri residents age 60 and older.

Lifetime permits are not available over the counter. For information about how to apply for one, visit www.MissouriConservation.org/8849, call 573-522-4115, ext. 3574, or write to Lifetime Permits, Missouri Department of Conservation, PO Box 180, Jefferson City, MO 65102-0180.

Deer Hunters: Don't Move Firewood!

Remember to leave firewood at home when heading out to deer camp. Equally important, do not bring firewood home after hunting or camping. By transporting firewood from place to place, you could spread the emerald ash borer, a devastating forest pest. Instead, buy firewood where you camp and burn it all before returning home. For more information about emerald ash borers and other forest pests, visit www.MissouriConservation.org/node/5606.

Now That is a Hailstorm!

How hard did it hail? It hailed so hard, it killed fish!

Seriously. Severe thunderstorms that swept through the Kansas City Region Sept. 18 dumped so much hail that road crews had to get out snowplows in some areas. Some of the hailstones were bigger than softballs. Most people could understand how Canada geese perished in such a storm, but everyone's jaws dropped when bass, bluegill, channel catfish and carp in area lakes and ponds went belly up.

Experts say the fish were not clobbered by ice balls but by the sharp temperature drop that occurred when tons of ice dropped from the sky. Fish are sensitive to sudden changes in water temperature, so the big chill alone might have caused the kills.

TIPS

FOR A

Safe and Ethical DEER SEASON

For many Missourians, falling leaves, shorter days and cooler nights are all indicators that we are entering one of the best seasons of the year—deer season. This year nearly half a million people will spend nearly 6 million combined days in Missouri's outdoors hunting deer. This annual season not only connects people to the outdoors, it also injects more than \$1.1 billion into Missouri's economy. It's an exciting time of year, so don't let unsafe or unethical practices ruin a great thing. Please keep this information in mind when you head to the woods and fields.





HUNTER ETHICS AND SAFETY TIPS

Deer and turkey hunters should follow safe, ethical hunting practices. These include:

- › Be sure of your target and beyond before you shoot.
- › Make sure your equipment is in good working condition and your firearm is properly sighted in.
- › If you hunt on private land, be sure to obtain permission from the landowner and respect his or her property as if it were your own. Scout the area you plan to hunt so you know where the boundaries, houses, roads, fences and livestock are located on the property.
- › If you do not kill your deer or turkey instantly, make every effort to find the wounded animal. Permission is required to enter private land.
- › Clean and care for your game properly.
- › Pick up all litter, including spent ammunition. Leaving an area better than you found it is a sign of thanks for the privilege of hunting.
- › Report observed violations of the law to a conservation agent or local sheriff as soon as possible.
- › If you are involved in a firearms-related accident, the law requires that you identify yourself and render assistance; failure to do so is a Class A misdemeanor.
- › Develop your skills and knowledge, and share them with others.
- › Know and obey all wildlife laws.
- › Know and follow the rules of gun safety.
- › Respect the rights of hunters, nonhunters and landowners.
- › Make every effort to retrieve and use all game.
- › Respect the land and all wildlife.
- › Be sensitive to others when displaying harvested game.
- › Remember, hunting is not a competitive sport.
- › **Beware:** When using a camouflaged blind, other hunters cannot see you, even if you are wearing hunter orange. To be safe, tie hunter orange on each side of the blind so it can be seen from all sides.



TREE STAND SAFETY TIPS

Elevated tree stands offer a better vantage point, a larger field of view and an earlier view of game. However, they also are a major cause of accidents during the deer hunting seasons.

The National Bowhunter Education Foundation recommends the following safety tips to reduce the risk of hunting from elevated tree stands:

- › Practice with your stand at ground level, gradually going higher. Several Conservation Department shooting ranges and outdoor education centers have practice poles for free public use.
- › Know the proper procedure for securing the stand to a tree and how to use the stand properly.
- › Read the manufacturer's warnings and instructions before each season.
- › Use only stands that meet standards of the Treestand Manufacturer's Association (TMA) rated for your weight and all gear or equipment you wear or have with you on the stand.
- › Always use a fall arrest system that meets TMA standards, which includes a full-body harness rated for your weight and any gear you wear or attach to yourself.
- › Have your fall arrest system attached to the tree from the moment you leave the ground, throughout the hunt and when you descend to the ground.
- › Always position yourself so that you step down onto your tree stand to test its stability.
- › Always use a haul line to raise and lower your gear, including unloaded firearms, bows and arrows.

For more details on tree stand safety from the National Bowhunter Education Foundation, go to www.nbef.org.

OPERATION GAME THIEF

Help catch wildlife violators. Each year, conservation agents spend time tracking down poachers who disregard regulations protecting wildlife. Here are some of the illegal activities that agents dealt with last year:

- › Hunting from the road
- › Disposing of deer carcasses and other body parts in streams, rivers, ponds and lakes
- › Harvesting a deer or turkey and putting someone else's transportation tag on it
- › Using a spotlight to harvest deer or turkey

Rewards are available for information leading to the arrest of game law violators. The Conservation Federation of Missouri and the Missouri Department of Conservation sponsor this program. Information can be provided anonymously by dialing the toll-free hotline number. All information is kept in strict confidence.

If you see a possible poaching violation in progress, immediately call your conservation agent, sheriff or the toll-free hotline number. Help put game thieves out of business. Dial toll-free 1-800-392-1111.



If you would like more information about deer hunting in Missouri, visit www.MissouriConservation.org/node/2458.

DEER HUNTING SEASON DATES

Firearms	opens	closes
November	11/13/10	11/23/10
Antlerless	11/24/10	12/05/10
Muzzleloader	12/18/10	12/28/10
Late Youth	1/01/11	1/02/11
Archery	opens	closes
	9/15/10	11/12/10
	11/24/10	1/15/11

HUNTERS, MEAT PROCESSORS CAN REDUCE LEAD RISK

Recent studies have shown that people who eat venison taken with lead-based ammunition may be exposed to lead bullet fragments in the meat. Removal of the tissue immediately around the wound area will reduce, but likely will not eliminate, exposure to lead.

Health officials in Missouri and several other states have reviewed this new information and concluded that lead in venison is a concern, but not a human health crisis. They note that millions of deer and other big game animals are taken by hunters each year to help control big game populations. However, caution is advised for young children, or women of childbearing age. Children less than 6 years of age are particularly sensitive to lead exposure because of their developing bodies. Concerns for lead exposure extend to pregnant women and women of childbearing age because they can pass lead to their unborn children.

The selection of ammunition for hunting deer and turkey in Missouri is a matter of personal choice. The Conservation Department strives to make the most current research available so hunters can make informed decisions. For those concerned about this new information, one solution is to use nontoxic ammunition that is available at most ammunition outlets.

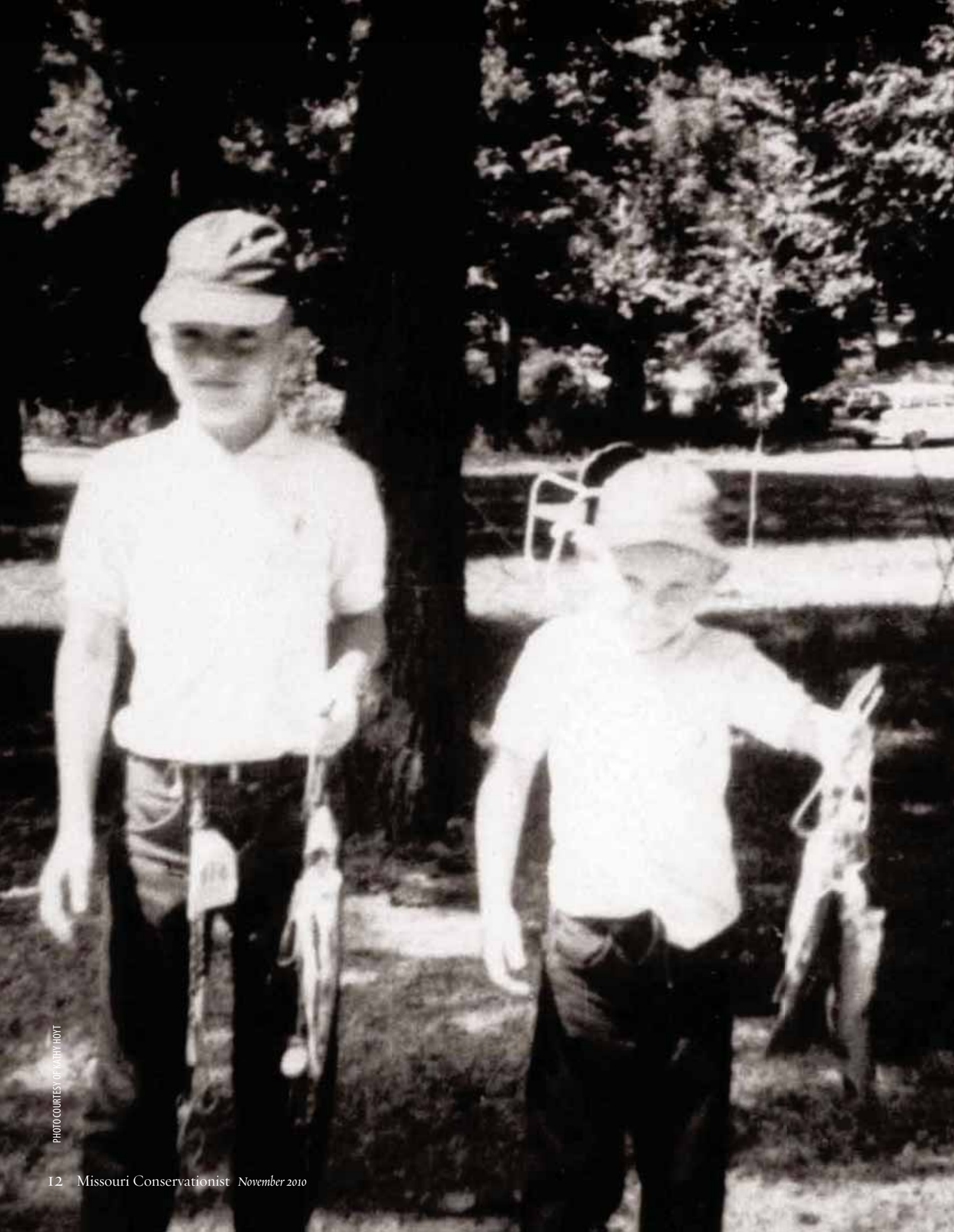
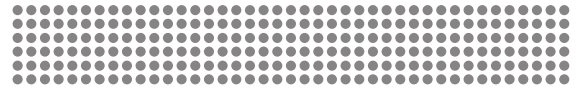


PHOTO COURTESY OF KATHY HOYT



OH ISLAND, WHERE ART THOU?



One family's saga captures the ebb and flow of Missouri's historic wetlands.

by JIM LOW

When Sandy White moved from Virginia to Saline County, Mo., in the late 1800s, he bought half a section of land on a 2,000-acre island along the south bank of the Missouri River. His domain just north of the town of Grand Pass encompassed bottomland hardwood forest, river frontage and one of the river's many side channels, or sloughs.

White sold groceries and other necessities to the island's residents. A few years later, he set up a sawmill to turn the area's abundant timber into another saleable commodity. With the money from these enterprises, he bought up land at every opportunity.

Pat (left), Tim and Mike Orear's family has seen many changes to the Missouri River.



PHOTO COURTESY OF KATHY HOYT

View of the Lake, Whites Island, Fishing & Summer Resort.

S. J. White, Mgr., Waverly, Mo.

Above: View of the lake at White's Island Fishing and Summer Resort.

Right: The store at White's Island. At its peak, visitors flocked to the island to fish, swim, hunt and generally rusticate.



In the summer, when the river's flow slackened, the slough became a placid lake bordered by sandy beaches chock-full of fish. In the fall, the vast wetland complex around the confluence of the Missouri, Grand and Chariton rivers attracted countless ducks and geese, creating a hunter's paradise. The Missouri River bottoms produced an astonishing abundance of wild delicacies for commercial markets in Kansas City. One shipment from the Grand Pass area contained 500 pounds of frogs alone.

Like his father, Stonewall Jackson White had a head for business, and he was quick to see mercantile possibilities in the natural amenities on what by then was known as White's Island. Using cottonwood lumber from the family mill, Stonewall built a hotel on the island. By 1902, he and his brother Hugh were placing advertisements in Kansas City newspapers for the White's Island Fishing and Summer Resort. Their timing could hardly have been worse—or better.

A flood destroyed the hotel in 1903, but they had the long, low, 14-room facility rebuilt within a year, demonstrating the White brothers' tenacity and their insouciance toward floods. The tide of history was on their side. Growing urbanization during the progressive era created nostalgia for rustic recreation, and the newfound leisure of America's middle class fueled demand for outdoor clubs and commercial resorts. Throughout the early years of the 20th century, visitors flocked to White's Island to fish, swim, hunt and generally rusticate.

The setting had changed but little from what Lewis and Clark saw on their passage through the area 100 years earlier, although the Whites had added a few amenities. At its zenith, in addition to the hotel and swimming beach, the resort boasted three rental cabins, a combination pool hall, skating rink and bowling alley, an icehouse (filled with ice cut from the river in winter) and a bathhouse where bathers could change clothes. The island had its own school and church as well.

Advertisements promised "good country food, fried chicken and old country ham. Nice cool porches and delightfully cool rooms with always a breeze from the lake, where the blue grass slopes to the water's edge, where we have boats and a launch and worlds of fish waiting to be caught."

To accommodate the seasonal migration from Kansas City, the Missouri Pacific Railroad maintained a stop at its crossing with the road to White's Island. There, visitors boarded horse-

THE OREARS REMEMBER



Last October, several members of the Orear family who still live in Saline County sat down to talk about the history that their forebears helped make on White's Island. Only one, Jean Orear Riley, has first-hand memories of the resort. Her grandfather, Robert Lee Orear, ran the island's general store.

"Aunt Jean" doesn't discuss her age, but she remembers fleeing White's Island with her family during the Great Flood of 1929. "It was pretty primitive," she recalls. "We didn't have electricity down here in the bottoms until after World War II."

She also recalls how the staff and guests passed evenings together. Then, as now, people enjoyed kicking up their heels. After moving aside tables and chairs in the dining hall at the center of the hotel building, they brought out musical instruments.

"Mother played the piano," she says. "Uncle Herb played violin and Uncle Jake the banjo. They played for dances in the evenings. That was their usual entertainment.

"My grandfather [Stonewall White] liked to hunt foxes, and he kept hounds for that purpose," says Riley. "Sometimes he would take people out into the hills at night, and they would stand around a big fire listening to his hounds running the foxes."

She has a photo from the resort's early years showing her mother, Georgia Weber White Orear, smartly dressed in a white riding dress, astride a



NOPPADOL PAOTHONG

Mike Orear, left, Jean Orear Riley and Tim Orear have many memories of their family on the White's Island Resort.

paint pony and holding two of their prize-winning foxhounds on leashes.

Outboard motors became widely available in the 1920s, which led to another leisure activity—motorboat racing. The Orears paint a nostalgic picture of brightly painted wooden skiffs with wheezing, belching 3- and 5-horsepower motors plowing across the mocha waters of the slough.

Tim Orear, whose memories are a generation younger than his Aunt Jean's, remembers his grandfather's hunting tales.

"He mentioned to me about how during duck season one time a blizzard blew in and killed several hunters," says Tim.

This recollection likely is related to the Armistice Day blizzard of 1940, which plunged hunters throughout the Midwest into life-threatening straits.

"I imagine the duck hunting was really good right in front of that storm," says Tim, who carries forward his family's hunting tradition.

As they retold stories, the Orears pointed to disappearing landmarks on an aerial map of the area.

"This used to be a lake, just a quarter of a mile from here," says one, "an old river slough that oxbowed around."

"Kind of a swamp, as I recall," someone else puts in.

"I can remember my dad talking about how when the ducks would get up it would just be a cloud, like on a wildlife area. I'm sure they would have hunted there."

Mike Orear, 61, can recall hunting spots that no longer exist.

"There was a few more sloughs and water holes out in the fields back in the '60s than there is now," he says. "I remember one family that they said picked a wagonload of mushrooms one spring."

If the image of a wagonload of morels doesn't make you yearn for the good old days, nothing will.



Stonewall Jackson White



View of lake from the hotel.



Georgia Weber White Orear

PHOTOS COURTESY OF KATHY HOIT

Grand Pass Conservation Area is located a few miles northeast of the historic White's Island resort.

WETLAND RESERVE PROGRAM

Efforts to restore Missouri's lost wetland legacy are not confined to public areas. The Conservation Department, in cooperation with the Natural Resources Conservation Service (NRCS), also helps private landowners who are interested in creating or enhancing wetland habitat. Landowners have enrolled 8,755 acres in the Wetland Reserve Program (WRP)

along a 60-mile stretch of the Missouri River near the historic White's Island Resort. This federal farm bill program offers owners of flood-prone acreage cash in return for wetland easements, while allowing them to retain ownership of their land. To learn more about WRP, visit www.nrcs.usda.gov/programs/wrp/, or call the nearest NRCS office.



drawn wagons for the final leg of the trip.

Photos from around the turn of the 20th century show patrons of the resort in starched white shirts and dresses, wearing ties and jewelry. In those days, a vacation was no reason to let yourself go.

The resort's glory days were brief. The same year they built the hotel, the Whites threw up an earthen dam across the slough to create a wagon crossing to the island. This must have vexed riverboat captains, who routinely used the side channel during high water to shorten the 8-mile traverse of Cranberry Bend. Ultimately, it also contributed to the resort's demise.

The dam, along with later river channelization, excluded seasonal flows that had periodically flushed silt down the slough and out into the river. By the time fire destroyed the old hotel building in 1954, the "lake" was a mucky shadow of its former self, and the surrounding land had accumulated enough soil to be converted into cropland. Today, you have to look hard to find any trace of evidence that the area

was ever an island.

As the resort's fortunes ebbed, so did sporting life in the Grand Pass and Dalton Cutoff area. Levees and drainage projects dried out most of the wetlands that once dominated the landscape, and the legendary hunting and fishing dwindled.

People began to notice the loss of wildlife just as the Whites' resort fell on hard times. It is not merely coincidence that Missourians voted to create the Conservation Department in 1936. A few years later, the agency began creating conservation areas to preserve or restore historic wetlands. Today Missourians once again can experience the spectacle of hundreds of thousands of ducks and geese funneling into Saline County's Missouri River bottomlands. This modern-day "resort" is the 5,000-acre Grand Pass Conservation Area, located a few miles northeast of the historic White's Island Fishing and Summer Resort. Admission is free, whether you come to hunt, fish or simply to bask in the wildness. ▲

GOLDEN ANNIVERSARY

Creation of large state-owned wetland areas began in earnest in the 1950s. Fountain Grove Conservation Area (CA), located on the Grand River about 25 miles north of Grand Pass, was in the vanguard of this effort. So were Duck Creek CA in southeastern Missouri, Ted Shanks CA near Hannibal, and Montrose and Schell-Osage CAs in southwest Missouri.

The levees, wells, water pipes and other infrastructure of managed wetlands eventually wear out or become obsolete as new methods, materials and designs develop. When Missouri's original wetland areas turned 50, the Conservation Department launched the Golden Anniversary Wetland Initiative to renovate its five oldest managed wetland areas. That decade-long effort is well underway.

The initiative will keep the gems in the Show-Me State's wetland and waterfowl-hunting crown productive for many years to come. Partners in the effort include the University of Missouri, Ducks Unlimited, the Missouri Waterfowl Association, the U.S. Fish and Wildlife Service, Big Muddy National Fish and Wildlife Refuge, the North American Wetlands Conservation Council, the U.S. Army Corps of Engineers, the U.S. Department of Agriculture and Kansas City Power & Light Company.



FRANK NELSON

This fall, four water control structures are being constructed along the ditch system coming to and through Duck Creek CA. These structures will help with water delivery, water management and flood relief, which will increase the capability of providing seasonally flooded wetland habitat for waterfowl and other wetland-dependent species.

SHEPHERD *of the* HILLS

A visit to this popular Branson destination reminds Missourians to be thankful for their freedom while they are enjoying the bounty of our natural resources.

by FRANCIS SKALICKY  photos by DAVID STONNER

A facility where people can learn about the importance of protecting our outdoor resources has become a site where visitors can appreciate the men and women who protect our country.

In November 2009, a dedication ceremony was held at Missouri Department of Conservation's Shepherd of the Hills Hatchery near Branson to unveil the facility's newest feature—a Blue Star Memorial Marker. A crowd that included armed forces veterans, Shepherd of the Hills Garden Club members, Missouri Department of Conservation personnel, Branson city officials, and Missouri Conservation Commissioner Don Johnson, himself a veteran, were on hand to witness the dedication.

The Blue Star Memorial Marker Program is a nation-wide effort of the National Garden Clubs Inc. that began in 1945. The program's initial purpose was to honor the men and women who served in the U.S. Armed Forces during World War II. In 1951, the program's mission was enlarged to include all men and women who have served, are currently serving or will serve in the U.S. Armed Forces. At present, there are 57 Blue Star Memorial Markers in Missouri and more than 2,000 nationwide.

"The Blue Star Memorial symbolizes the freedom we enjoy in the USA," said Bev Brown, a member of the Shepherd of the Hills Garden Club and the chairman of the club's Blue Star Memorial Project. "Our country is the 'Home of the free, because of the brave.'" These markers are small tokens of gratitude from us to them (the veterans) to let them know we will not forget."

Shepherd of the Hills' marker, a sign surrounded by a decorative landscaping arrangement of native stone and native wildflowers, is located near the entrance to the hatchery's Conservation Center. The dedication ceremony was the culmination of an effort that began more than a year before. People and groups involved in this cooperative venture included members of the Shepherd of the Hills Garden Club, the Branson Chapter of Trout Unlimited, the American Legion Post 220, Perberton-Jennings Post 220, members of Branson Cub Scout Pack 93, students from College of the Ozarks and the work of local landscaper Chris Lambing.







An MDC hatchery worker tends to trout at the Shepherd of the Hills Fish Hatchery on Lake Taneycomo.

“The bottom line of this project is that it was a community effort,” said John Miller, the naturalist programs supervisor at Shepherd of the Hills. “This could not have been done by any one group.”

Those unfamiliar with Shepherd of the Hills Hatchery may think it’s odd to put a veteran’s memorial at a place designed to raise trout. To anyone who has visited the facility, though, it makes perfect sense.

It’s true that Shepherd’s foremost mission is to fuel Missourians’ ongoing love affair with trout fishing. The state’s largest trout hatchery, located on the west end of Lake Taneycomo just below Table Rock Dam, raises approximately 1,250,000 rainbow and brown trout annually. More than 700,000 of those fish—the bulk of which are rainbows—go into Taneycomo each year.

Thanks in large part to the joint management efforts of Missouri Department of Conservation staff at Shepherd of the Hills, Empire District Electric Company (Empire owns the reservoir), the U.S. Army Corps of Engineers (the Corps operates Table Rock Dam), and U.S. Fish and Wildlife staff at the Neosho National Fish Hatchery in Neosho, Lake Taneycomo has become a widely renowned trout-fishing destination. Cold-water discharges from

Table Rock Dam during hydro-electric generation create water temperatures that are suitable for trout habitat over much of the lake’s 22-mile length. These good conditions, combined with the hatchery’s regular stocking efforts, have given the lake a well-deserved reputation for fish quantity and quality. The lake’s most recent headline-grabber was the state-record 28.8-pound brown trout that was caught by Scott Sandusky of Arnold in November 2009. There’s ample evidence that even bigger fish lurk beneath the surface:

- In 2001, during their annual summer sampling at Lake Taneycomo, Missouri Department of Conservation biologists captured a brown trout that weighed approximately 37 pounds—a weight that would have shattered the recently set state record.
- In 1997, a dead brown trout weighing 37.1 pounds was found floating in Taneycomo. Even more interesting than its weight was the carcass’ length of 41.75 inches. This was greater than the length of the world-record brown trout at that time, which led biologists to theorize that, when this behemoth brownie was alive and healthy, there was a good chance it had been a world-record fish.

Shepherd of the Hills' management efforts aren't just about producing lunkers for Taneycomo. The hatchery also provides rainbow and brown trout for other Department of Conservation trout management areas in the state and supplies trout eggs and fingerlings to other Department of Conservation trout-production facilities.

However, the hatchery's connection with the Blue Star Memorial Marker program isn't as much about the thousands of fish that leave the hatchery each year as it is about the thousands of people that come to the site. Thanks, in part, to the tourism boom of the Branson area, Shepherd of the Hills has become a much-visited ambassador of the Missouri Department of Conservation in southwest Missouri that plays a huge role in spreading the conservation message to the large number of people that travel to the Branson area each year.

Visitors to the hatchery get an up-close-and-personal view of how trout are raised. Through both guided tours and individual walks around the rearing pools, people can get a good look at the trout being raised for release in Taneycomo and elsewhere. Inside the Conservation Center, visitors can get views of live trout and also can see live specimens of some of the Ozarks' snake species on display in the 50-seat auditorium. This auditorium is also the site of periodic programs and an audio visual program about the hatchery. One of Shepherd's biggest non-fish events is the annual Vulture Venture program held each February. This event helps visitors learn more about the hundreds of vultures that winter at Lake Taneycomo each year. Nature trails and a photo blind in the vicinity of the hatchery provide visitors additional opportunities to appreciate the area's natural beauty.

Currently an average of 250,000 people visit Shepherd's Conservation Center each year. An average summer day's attendance is 1,200—on a busy day, that daily attendance number has frequently ballooned to as many as 1,800 people. To put that in perspective of an eight-hour work day, that means an average of 300 people per hour are walking through the doors of Shepherd of the Hills' Conservation Center on its busiest days.

In July of 2008, the hatchery reached an attendance milestone when it received its 6-millionth visitor. This accomplishment takes on added significance when it's noted that the hatchery, which was built in 1958, didn't begin keeping attendance figures until 1980.

In addition to sheer numbers, Branson's far-flung fame as a vacation destination has added another distinguishing characteristic to the crowds that come to Shepherd of the Hills Hatchery each year: They frequently are from elsewhere in the country and, on occasion, from elsewhere in the world.

All these factors made it a perfect location to put an honorary marker for the country's armed forces that you want people to notice.

"Choosing this location was the Garden Club's idea," said Pat Piland, president of the Shepherd of the Hills Garden Club. "The site had to be a location where the marker would be seen by a large number of people, it had to be a civic location (not privately owned), had to have ample parking, had to have room for landscaping, had to have approval of the authorities who owned the land, had to be in a protected area and had to have the commitment of continual upkeep from the owners of the land. Shepherd of the Hills Fish Hatchery met all of the above criteria."

Brown agreed.

"We felt the location added history, beauty and educational opportunities along with being a tribute to all veterans, a way of saying 'Thank you,'" she said.

When garden club members came to Shepherd of the Hills Hatchery staff with the idea of putting a marker at the hatchery, their request fell on receptive ears.

"When we approached John Miller, he was excited to have the memorial located at the Hatchery," Piland said. "This has been a good fit from the start."

Miller feels the Blue Star Memorial Marker is a good fit for the hatchery. Even though the sign makes no mention of the management of fish, wildlife or forests, he said the message it conveys has a definite tie to conservation.

"This memorial reminds us that our veterans helped to protect our people, our way of life and the natural resources of our country," he said. "This memorial, in such a beautiful setting, will remind everyone of the wonderful natural beauty of the state and this region—and we have our veterans to thank for the protection of this natural beauty." ▲

Visiting Shepherd of the Hills

AREA HOURS:

September–June: 9 a.m.–5 p.m.

Memorial Day–Labor Day: 9 a.m.–6 p.m.

Closed Thanksgiving, Christmas and New Year's Day.

DIRECTIONS:

The hatchery and conservation center are located on Highway 165 just south of Branson, below the dam at Table Rock Lake.

TOURS:

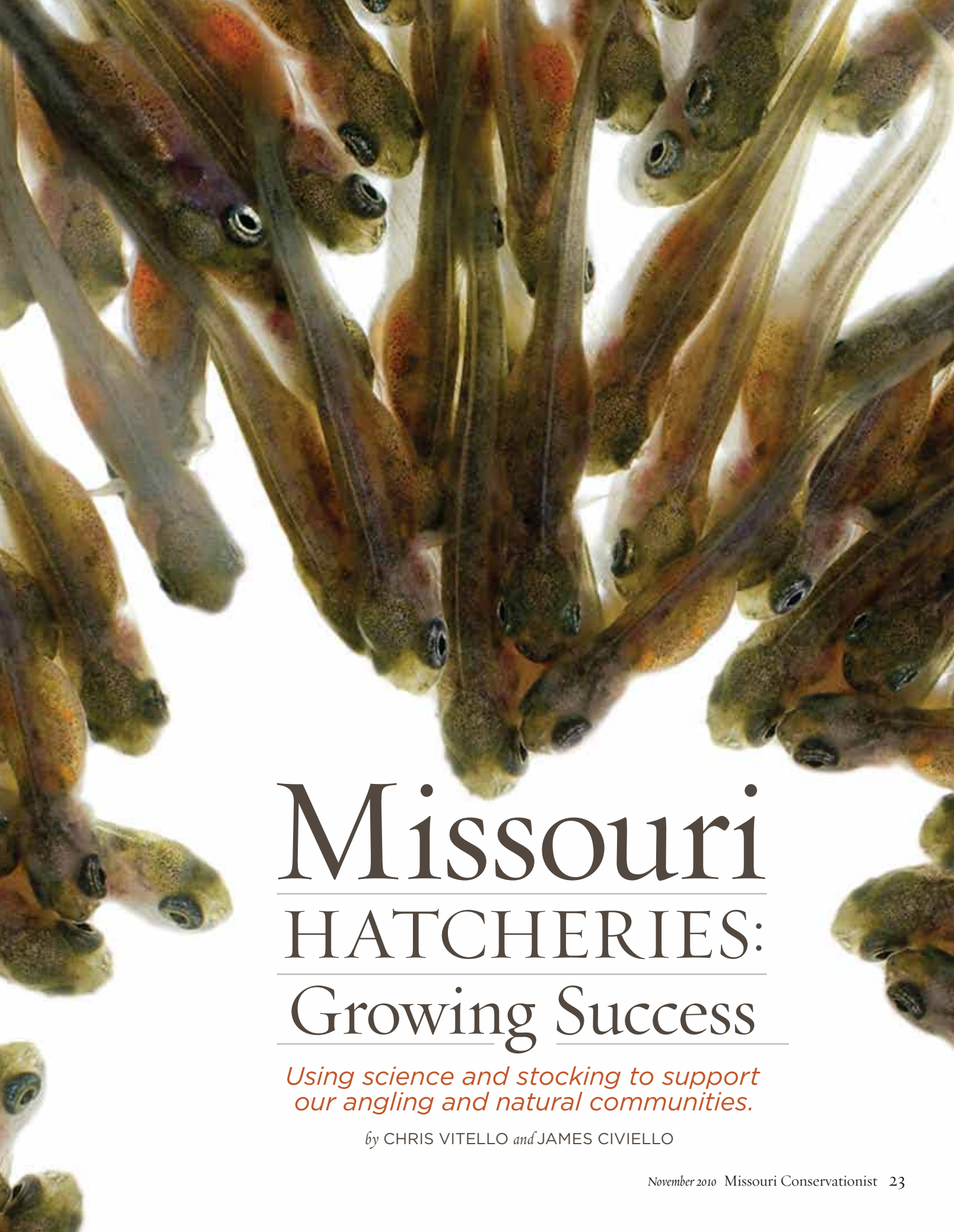
Guided hatchery tours are provided at 10 a.m., 11 a.m., 1 p.m., and 2 p.m. weekdays from Memorial Day to Labor Day. During the remainder of the year, self-guided tours are available.

Website: www.MissouriConservation.org/node/290

Phone: 417-334-4865







Missouri HATCHERIES: Growing Success

*Using science and stocking to support
our angling and natural communities.*

by CHRIS VITELLO and JAMES CIVIELLO

Fishing is fun. It's also big business in Missouri. Nearly 1.2 million anglers fish in Missouri waters each year. About one in 10 Missourians, between the ages of 16 and 64, enjoy fishing opportunities each year. Missouri anglers fish approximately 16 million days annually and account for a substantial portion of the \$11 billion-a-year business resulting from conservation-related activities.

For the Department of Conservation, maintaining and enhancing the quality of Missouri fishing accounts for the efforts of more than 160 biologists, hatchery managers and support staff. Our biologists use all of the tools at

their disposal to meet the demands and needs of Missouri anglers—good habitat management, science-based regulations, public input and, where appropriate, the fish produced in Department hatcheries.

Enhancing Natural Production

For many fish species, natural reproduction is enough to support high-quality fisheries. As long as habitat is adequate, most of our native fish sustain their numbers from year to year, with some natural fluctuations. Good natural reproduction and science-based management, including appropriate regulations, provide quality fishing opportunities. Crappie and black bass fisheries in large reservoirs, and smallmouth bass and goggle-eye fisheries in streams, demonstrate this concept.

Some Missouri rainbow trout fisheries are supported solely by natural reproduction. Crane Creek in Stone County is an example. On the other hand, reproduction and recruitment is limited for some fish species. Supplemental stocking is needed to support paddlefish fisheries in locations such as Lake of the Ozarks and Table Rock Lake. Others, like the spring-fed streams at Bennett Spring, Maramec Spring, Montauk and Roaring River trout parks, receive very heavy fishing pressure and require daily stocking to maintain fishing quality.

Hatcheries are an integral part of the Department's stream and lake management programs. They have been instrumental in establishing and maintaining many popular sport fisheries. Over a span of nearly 75 years, biologists and hatchery personnel have evaluated, cultured and stocked a variety of sport fish that include walleye, muskie, brown trout and hybrid striped bass. Stocking these fish has enhanced the diversity of fishing opportunities and made Missouri fishing a richer experience.

During 2009, Department staff stocked almost 8.5 million warm-water fish and nearly 1.6 million rainbow and brown trout at locations throughout Missouri. A variety of species of conservation concern, including various mussel species, Ozark and Eastern hellbenders and pallid sturgeon, were also raised in Department hatcheries. Hatchery production and stocking of these species are integral parts of ongoing species recovery efforts.

MDC paddlefish breeders at Blind Pony Hatchery work on getting the eggs from a female paddlefish.



DAVID STONNER

PADDLEFISH

During the 1960s and '70s, Department hatcheries developed techniques that resulted in the first significant hatchery production of paddlefish, *Polyodon spathula*. These efforts were driven by the loss of natural spawning areas in Missouri. The successful introduction of hatchery-produced paddlefish into Table Rock Lake and the Osage River system helped to establish and maintain popular paddlefish fisheries and were followed by stocking in the Black River below Clearwater Lake.

Today, Department hatcheries are among the world's largest producers of paddlefish. Eggs and sperm from wild-caught fish are used to produce fry and fingerling fish in the spring. The resulting fish are typically 10 to 13 inches long and are ready for stocking by early fall.

More than 260,000 paddlefish were produced by Department hatcheries in 2008. These stockings are maintaining excellent fishing for one of the largest, most ancient and unique of all freshwater fish, and each spring anglers come from across the country to catch paddlefish that can weigh in at more than 150 pounds.

1,000 DAYS OF CARE *by James Civiello*

In October 2007, I received a call from our state herpetologist, Jeff Briggler, who found a fertilized clutch of hellbender eggs in one of our Ozark streams. There were more than 400 developing embryos in this clutch. I was concerned about how to care for the eggs. There were very few references for the questions I had about how to incubate, hatch and raise hellbenders. I decided that because hellbenders (the largest amphibian in North America) behave much like a fish in terms of habitat requirements and external fertilization of the eggs, I would care for the eggs exactly as I have cared for trout eggs over the past 20 years.

Well, the plan worked. After about 20 days of incubation and care, more than 90 percent of the clutch hatched. The next challenge was to find out what I could feed these larval hellbenders and how I could get a reliable supply of food to feed more than 300 mouths. Aquatic invertebrates, plentiful in the outfalls of Shepherd of the Hills Hatchery, were the answer. I was thrilled when the first young hellbenders consumed the small invertebrates. Now, after diversifying their diet with a variety of worms, crayfish and freeze-dried krill, the hellbenders are large enough to accept a pit tag, injected just under the skin in the tail area

In July, after exactly 1,000 days of care, the Conservation Department made its first release of juvenile Eastern hellbenders into the wild that were cultured in a state fish hatchery. Only 100 of them were tagged and released to provide space in the limited tanks available to grow hellbenders at the hatchery. The 100 juveniles released doubled the estimated Eastern hellbender population in the Ozark stream. The hellbenders averaged 9.5" in total length and weighed a little more than 3 ounces. These animals will continue to be monitored. Finding the small individuals is a challenge, but we hope to learn much about their survival, behavior and distribution over the next few years. This release compliments the Ozark hellbender captive breeding, propagation and release work accomplished at the St Louis Zoo over the past 15 years.



Eastern hellbender in the larval stage (left) and at 7 months old (below)



Innovation and Value

Department of Conservation hatcheries are operated with the overriding mission of serving the public with a quality product in an efficient manner. Commitments to cost-containment, research, innovation and fish health are critical components of the Department's hatchery program. Fish are typically produced in Department hatcheries at costs well below the cost of purchasing fish from commercial sources. However, fish are purchased in limited quantities in a few cases where fish are available commercially at a lower cost than they can be produced in a Department facility.

Department staff has a long history of hatchery innovation with new efforts currently underway. Department personnel are on the cutting edge of fish culture and hatchery operations. From developing spawning and rearing techniques for pallid sturgeon, to examining strains of rainbow trout to enhance hatchery performance, survival and growth after stock-



Last year, Lake Paho Fish Rearing Station contributed more than 75,000 stocking-sized channel catfish for public waters.



ing, developing and enhancing fish culture techniques is a real and growing strength of the Department's hatchery system.

Department hatcheries are also setting the standard in efforts to ensure fish health and to limit the spread of fish diseases and invasive species. Facilities and equipment are cleaned and maintained to exacting standards and protocols. Water used in fish culture is filtered and treated to remove invasive organisms such as zebra mussels and prevent their spread. New protocols and procedures are shared with Missouri's commercial hatchery operators to assist them in efforts to maintain fish health and control invasive species.

A Strong Angling Future

The future is bright and promising. Using state dollars to match Sport Fish Restoration Act funds generated through the purchase of fishing and boating equipment by anglers and other citizens, aging Department hatcheries are undergoing a series of improvements and updates. Federal Sport Fish Restoration Act funds cover up to 75 percent of construction costs and are also used to fund hatchery staffing and operations costs, lake and stream management efforts and access development statewide. The purchase of daily trout tags and annual trout permits covers much of the year-to-year cost of raising trout.

As anglers and biologists look to the future, recent and ongoing hatchery enhancements will help to ensure that stocking continues to serve as an important tool in the management of fish populations. Department hatcheries

will provide the proper numbers and sizes of the selected fish species needed to establish balanced fisheries, to supplement recruitment where fishing pressure is highest, to maintain high-quality fisheries for species such as paddlefish where natural reproduction and recruitment is limited and to aid in the restoration of rare, threatened and endangered species. ▲

TOUR A HATCHERY

Two of our most popular hatchery destinations are Shepherd of the Hills and Lost Valley fish hatcheries. Take a free tour to learn more about Missouri fisheries and see how a modern hatchery functions first-hand.

Shepherd of the Hills Fish Hatchery

Shepherd of the Hills is the largest trout production facility in the Department of Conservation's trout production program. The primary role for this facility is the production of rainbow and brown trout. The hatchery boasts a Conservation Center that receives 250,000 visitors annually and provides a vast amount of information to the public with a focus on fisheries.

AREA HOURS:

September–June: 9 a.m. - 5 p.m.

Memorial Day–Labor Day: 9 a.m. - 6 p.m.

Closed Thanksgiving, Christmas and New Year's Day.

DIRECTIONS:

The hatchery and conservation center are located on Highway 165 just south of Branson, below the dam at Table Rock Lake.

TOURS:

Guided hatchery tours are provided at 10 a.m., 11 a.m., 1 p.m., and 2 p.m. weekdays from Memorial Day to Labor Day. During the remainder of the year, self-guided tours are available.

Website: www.MissouriConservation.org/node/290

Phone: 417-334-4865

Lost Valley Hatchery

Lost Valley Hatchery is the largest warm-water state-owned hatchery in Missouri and one of the 10 largest in the nation. The hatchery building houses a 2,000-square-foot visitor center with a 12,700-gallon aquarium. Fish species being raised at the hatchery include walleye, muskellunge, channel catfish, largemouth bass, striped and hybrid striped bass, bluegill and hybrid sunfish.

AREA HOURS:

9 a.m.–4p.m. Tuesday–Saturday, year-round.

Closed Thanksgiving, Christmas and New Year's Day.

DIRECTIONS:

Lost Valley Fish Hatchery and Visitor Center is located east of Highway 65 at the Truman Dam access road on County Road 620 just northeast of Warsaw.

Website: www.MissouriConservation.org/node/284

Phone: 660-438-4465

TROUT

Cold-water hatcheries at Bennett Spring near Lebanon; Maramec Spring near St. James; Montauk near Licking; Roaring River near Cassville; and Shepherd of the Hills near Branson produce 10- to 12-inch rainbow and brown trout. The majority of the fish produced in these facilities are used to support popular fisheries in the four trout parks and Lake Taneycomo. Additional trout are stocked less frequently and in smaller numbers to provide enhanced fishing opportunities in several spring-fed streams across southern Missouri. Trout are also stocked in select small impoundments in major population centers to provide close-to-home fishing opportunities during the winter.

Timber Rattlesnake

Missouri's largest venomous snake has the camouflage and demeanor to keep it under the radar.

"BE CAREFUL WHERE you step," instructed Lia Heppermann as the radio tracking device on her belt chirped at its highest frequency yet. We came to a stop and scanned the area to no avail until Heppermann finally whispered, "It is right between us." I slowly looked downward in the dim light of dusk and saw the beautiful reptile, a master of camouflage, coiled at our feet—a timber rattlesnake.

Earlier in the week, Heppermann, a wildlife biologist with the Missouri Department of Conservation, had been monitoring the movements and habitat use of resident timber rattlesnakes (*Crotalus horridus*). Aware of my love for nature photography, she asked me if I would like to come along and photograph one of her "subjects." Heppermann was participating in a cooperative study between the Department of Conservation and the St. Louis Zoo. I jumped at the opportunity, as I'd never seen a rattlesnake in Missouri, and I certainly never expected to photograph one.

Timber rattlesnakes are Missouri's largest venomous snake, growing to a length of 3 to 5 feet. Like all venomous snakes in Missouri, the timber rattlesnake is a pit viper, which means that it has a temperature-sensitive hole between the nostril and the eye that it uses to detect warm-blooded prey. Other characteristics of the timber rattlesnake include its tan color, rust-colored stripe along its back overlain by dark blotches, vertical pupils and a rattle at the end of its tail. Timber rattlesnakes also have a dark line extending from each eye along the angle of their jaw.

According to the Department of Conservation book, *Snakes of Missouri*, timber rattlesnakes can be found on rocky wooded hillsides, especially south-facing slopes, where they take advantage of the sun's warmth throughout the day, especially during cooler months. During the summer, they find a cool place to rest during the day and limit their activity to evening hours. Timber rattlesnakes are in decline in Missouri, mostly due to degradation of habitat and persecution by humans.

Timber rattlesnakes are active from April to October and breed soon after they emerge from overwintering dens. Females give birth every other year to eight or nine self-sufficient young in late summer. Timber rattlesnakes feed on a variety of rodents and the occasional cottontail by striking and injecting venom to subdue their prey. A secondary use of venom is for self-defense, but bites from the timber rattlesnake are extremely rare in Missouri. As a matter of fact, they rarely show aggression, even in close proximity to humans or other large animals that are not considered as prey.

"I would love to get a shot at eye level," I urged Heppermann after she recorded the GPS coordinates of the coiled creature. Because the snake was situated on a slope, I was able to obtain a low angle shot by crouching at a safe distance, producing a face-to-face image of the docile animal; a female, according to Heppermann. As we departed the forest at dusk, I reveled in my experience and felt invigorated to have participated, if even for a day, in a study that would help to ensure a prosperous future for this regal reptile.

—story and photo by Danny Brown





Cooper Hill CA

Find local history, hunting, fishing, birding and scenic views at this area on the Gasconade River.



NOVEMBER IS A good time for history buffs, hunters, anglers and birders to visit this little-known area near the village of Cooper Hill in Osage County.

Situated at the confluence of Third Creek and the Gasconade River, Cooper Hill CA is the site of the former Leach Steam Saw and Grist Mill. It was constructed in 1858 and operated continuously, producing cordwood, until 1924. Although the old mill is gone, you'll find the Leach-Baker Cemetery, which has several interesting headstones dating from the 1800s, up the hill from the parking lot.

The 214-acre area includes 35 acres of food-plot crops as well as two watering ponds for dove, deer, turkey and other wildlife. Another 15 acres of fields are currently planted in native forbs and grasses. The rest is in woodland, with mixed oak and hickory, along with other mixed hardwoods and cedars. November hunters will find decent populations of deer, dove, turkey, squirrels and waterfowl.

Floaters will find access to the Gasconade River at the parking lot and from gravel road C.R. 821, where it is possible to hand-launch canoes or small boats. There is no access for trailered boats. Anglers can try their luck for bass, catfish, crappie, suckers and sunfish in the Gasconade River.

Primitive camping is allowed in and next to the parking lot. The area has no designated hiking trails, but hikers can use maintenance roads to explore the area. It's also possible to hike along the north side of the area, where bluffs afford scenic views of the Gasconade River.

Birders can expect to see a variety of species, including red-bellied woodpecker, golden-crowned kinglet, white-throated sparrow and white-breasted nuthatch in the forest and woodland areas. Grassland and shrub birds, such as indigo bunting, can be seen on the area's hilltop. For a full list of the bird species you can find at Cooper Hill, visit the Audubon Society of Missouri's website at <http://mobirds.org/CACHE/trips.asp>.

As always, browse the area's webpage (listed below) for directions, area map, dove management map, brochure and regulations before beginning your outdoor adventure.

—Bonnie Chasteen, photo by David Stonner



Recreation opportunities: Bird watching, fishing, floating, hiking and hunting in season
Unique features: Historic features, mixed habitat supporting a variety of wildlife, access to the Gasconade River and scenic bluff-top views

For More Information

Call 573-884-6861 or visit www.MissouriConservation.org/a9605.



Hunting and Fishing Calendar

FISHING

	OPEN	CLOSE
Black Bass (certain Ozark streams, see the <i>Wildlife Code</i>)	5/22/10	2/28/11
impoundments and other streams year-round		
Nongame Fish Giggling	9/15/10	1/31/11

HUNTING

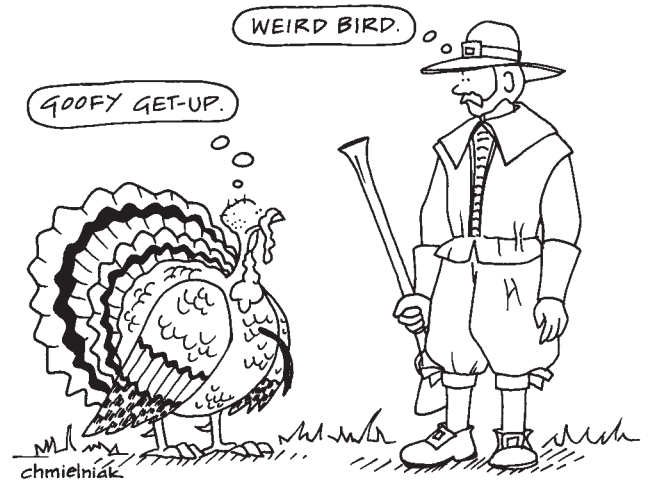
	OPEN	CLOSE
Coyotes	5/10/10	3/31/11
Crow	11/01/10	3/03/11
Deer		
Firearms		
November	11/13/10	11/23/10
Antlerless	11/24/10	12/05/10
Muzzleloader	12/18/10	12/28/10
Late Youth	1/01/11	1/02/11
Archery		
	9/15/10	11/12/10
	11/24/10	1/15/11
Doves	9/01/10	11/09/10
Furbearers	11/15/10	1/31/11
Groundhog	5/10/10	12/15/10
Pheasant		
North Zone	11/01/10	1/15/11
Southern Zone	12/01/10	12/12/10
Quail	11/01/10	1/15/11
Rabbits	10/01/10	2/15/11
Rails (Sora and Virginia)	9/01/10	11/09/10
Squirrels	5/22/10	2/15/11
Turkey		
Archery	9/15/10	11/12/10
	11/24/10	1/15/11
Waterfowl	please see the <i>Waterfowl Hunting Digest</i> or see www.MissouriConservation.org/7573	
Wilson's (common) snipe	9/01/10	12/16/10
Woodcock	10/15/10	11/28/10

TRAPPING

	OPEN	CLOSE
Beavers and Nutria	11/15/10	3/31/11
Furbearers	11/15/10	1/31/11
Otters and Muskrats	11/15/10	2/20/11

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/.



First impressions

Contributors

JAMES CIVIELLO has been fish farming for the Department of Conservation for more than 25 years. He currently supervises the fish production at nine state fish hatcheries and is based out of Shepherd of the Hills Hatchery. In his spare time, he enjoys all that the Branson Tri-Lakes area has to offer.



JIM LOW hunts waterfowl on 200 acres of Wetland Reserve land in the Missouri/Grand/Chariton river delta. He is excited about applying to hunt at Grand Pass CA under the Quick Draw system.

FRANCIS SKALICKY lives in Springfield and has been the metro media specialist for the Department's Southwest Region for the past 15 years. In between his duties of facilitating media coverage for Department-related stories, he tries to get out and enjoy the Ozarks outdoors as much as possible.



CHRIS VITELLO has been with MDC's Fisheries Division for more than 23 years. He has worked in locations across south Missouri, coordinating stocking with MDC lake and stream managers and hatcheries. He is currently Fisheries Division Chief, working in Jefferson City. Chris enjoys fishing and hiking.

WHAT IS IT?

Mallard Duck

On the back cover and right is a male mallard duck by Noppadol Paothong. Females are a mottled brown. Found throughout North America and Eurasia, this large dabbling duck (ducks that feed by tipping upside down to forage in shallow waters) is the ancestor of all domestic ducks except the muscovy. Though they breed in the spring, mallards begin courting in the fall and pairs remain together throughout the winter. For information on waterfowl seasons and regulations, visit www.MissouriConservation.org/node/9619.



AGENT NOTES

Natural resources for all to enjoy

I HAVE BEEN a conservation agent for 33 years. In that time, I have heard on several occasions when checking someone's fishing or hunting permit, "I have been hunting and fishing all my life and never been checked by a conservation agent." I always enjoy making these contacts with people who have never been checked before. It is a treat for them and for me. They are glad I am out there enforcing the fish and game laws of the *Wildlife Code*, and I am happy to see them enjoying Missouri's outdoor resources. Most people have been buying permits for years and are really excited to actually show us their permit.

There are almost 6 million people living in the state of Missouri. There are 1,437,603 people who hunt and fish and buy permits regularly. There are about 175 conservation agents in the field who are

working to enforce the fish and game laws. Just last month, I made contact with a young man who didn't have a fishing permit. While I was checking him, he told me he had bought a permit last year and didn't get checked, so he decided to take a chance this year. While you may not personally encounter a conservation agent every time you are out hunting, fishing or trapping, rest assured that public contacts and permit checks are being made every day. Also, the purchase of permits helps generate federal funding for conservation projects in Missouri.

Conservation agents enjoy visiting with people about conservation. The majority of people hunt and fish legally and they have a positive experience when checked by an agent. Don't get upset if you are contacted by an agent who asks to see your hunting or fishing permit and any wildlife you possess. We are just hard-working men and women who want to ensure there will be plenty of fish, forest and wildlife resources for future generations to enjoy.



Michael Terhune is the conservation agent for Cedar County. If you would like to contact the agent for your county, phone your regional Conservation office listed on Page 3.

WHAT IS IT?

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



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www.MissouriConservation.org/15287

Free to Missouri households

