





Time For Change

n Page 23, you'll see "1944 Flood Control Act Doesn't Make Good On Promises," the first article of a two-part series. These thought-provoking articles are reprinted from the *North Dakota Water* magazine with permission from the North Dakota Water Education Foundation. Controversy swirls around the federal law that binds the U.S. Army Corps of Engineers (Corps) in its management of the Missouri River. The management plan became law when Congress approved the Flood Control Act of 1944 – almost 65 years ago. Clearly, it is outdated.

This is a tale of contrasts – of a plan developed in a much different era than the one it operates in today. The old era came on the heels of a series of catastrophic floods, while much of the basin today is parched from long-term drought. The old era was post World War II when thousands of American servicemen returned home needing jobs, and our country was ripe for development with little regard for natural resources. The current era is one of ecological consciousness and concern for critical habitats. Water-based recreation has become a major economic force. However, the out-of-date Master Manual continues to guide river management without flexibility to accommodate very different economic trends and despite changing times and unfulfilled promises.

The Missouri River Association of States and Tribes (MoRAST) is a regional interstate organization formed by joint resolution of the Governors of Wyoming, Montana, North Dakota, South Dakota, Nebraska, Iowa and Kansas and the Mni Sose Intertribal Water Rights Coalition. It was formed to help resolve issues of concern to the basin states and tribes, to serve as a forum to foster communication and information exchange among the member states, tribes and various other governmental units, and to facilitate the management of the natural resources of the Missouri River Basin, including water resources, fish and wildlife while considering the impacts to the economic, historical, cultural, and social resources.

I serve on MoRAST at the request of Gov. Sebelius. The group's executive director is David Pope, of Topeka. Pope spent 24 years as the chief engineer for the Kansas Department of Agriculture's Division of Water Resources. Some may question Kansas' involvement when only a small section of the Missouri River touches our state. But the impacts of river management reach beyond the river itself. Three major Kansas reservoirs, Tuttle Creek, Milford and Perry, empty into the Kansas River, which eventually dumps into the Missouri. All three are managed by the Corps and are impacted by this outdated law.

One key facet of the outdated plan is keeping enough water in the Missouri River for barge navigation. As you'll read in the article, the amount of freight shipped on the river has never come close to projected levels. However, the Corps can still require water releases from reservoirs to maintain navigable levels. This has affected Milford, Perry and Tuttle Creek, especially during drought.

On these reservoirs, as well as those constructed on the Missouri, water-based recreation has become extremely important to local economies. Mandatory releases, especially in drought years, can severely impact fishing and boating, as well as all other outdoor recreation at the lakes.

In 2002, the required drawdown at Perry Reservoir left the lake 6 feet below what is considered optimal for recreational use. Sailboats had to be removed and marinas suffered a loss of business. In 2003, Gov. Sebelius and the Kansas Water Office negotiated a deal in which the Corps agreed to hold Perry five percent above conservation pool in case a drawdown was required before Labor Day Weekend. It worked when a release was required in 2004. However, a deviation from the Master Plan is only granted one year at a time and never more than two years in a row. As drought continues in the upper basin of the Missouri, lake users and recreation businesses can't depend on stable lake levels.

The situation is much worse on mainstem reservoirs on the upper section of the river. MoRAST is asking for a study of the Flood Control Act of 1944 – to revisit this 65-year-old law to see where it could be improved. The Master Manual needs to consider recreation, wildlife, drinking water, tribal issues, drought, and sedimentation of the basin. It's time for change.



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Front Cover: River otters are making a comeback in Kansas Mike Blair filmed this underwater otter at the Sedgwick County Zoo with an 18mm lens, f/4 @ 1/640 sec.

Back Cover: Mike Blair filmed this pronghorn buck in Wallace County with a 600mm lens, f/11 @ 1/500th sec.





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SOY INK

Letter...

ENJOYED ROADRUNNERS

Editor:

First I want to just say that we enjoy your magazine very much. This month's article on roadrunners was very interesting. We had one in our yard in 2006 that I'm enclosing a picture

of. The other day we saw another one. My husband was mowing the yard, and the roadrunner jumped down and got a big grasshopper in front of the mower. We live in the country so we enjoy all the wildlife. Our nephew told us that roadrunners eat quail. Is that true? We don't want anything to happen to the quail that come into our yard to eat from the feeders.

Anyway, thanks for all the interesting articles and particularly the beautiful pictures. I take lots of pictures of everything but, of course, none compare with the ones taken by Mike Blair. Keep up the good work.

> Barbara and Jake Harbaugh Sharon

The roadrunner is an interesting and fascinating bird, and I always feel fortunate when I get a glimpse of one. I checked with my best birdbrains to find an answer to your question about them eating quail. We found no recorded observations. However, roadrunners are known to eat small birds, along with snakes, lizards, grasshoppers, and a wide variety of other things. Most experts believe that if given the opportunity, a roadrunner might catch and eat a quail chick. An adult bobwhite would probably be too large to be considered prey. And with the roadrunner's low population density in Kansas, it probably doesn't represent a serious threat to young quail.

Miller

HUNTING with Wayne Doyle HERITAGE

The season of the hunter is almost here

It is coming! It is getting closer. The time of year that hunters have waited for since the last season ended is at hand.

Wildlife's urgency of reproduction is being replaced by the urgency of preparing for winter. They sense, even in the heat of September, the coming change of seasons. Deer coats are changing from red to brown to blend in with winter's drab. The urgency of migration is evident as Mississippi kites are staging and monarch butterflies are passing through on their amazing journey. The purple martins are gone. The black bird flocks are growing. Large numbers of blue-winged teal have arrived from the northern prairies. The coyote's winter coat is forming. The hunter sees these signs and knows. It is coming!

The hunter's preparations become more urgent. As hunters see the days grow shorter, we feel the need to stock up on ammunition or the "need" for a new gun. There is a strong urge to touch up the decoys, one more time, and try out the new duck call, for the hundredth time – signs that it is coming. Another round of clay targets or one more range session with the deer rifle is in order.

Our four-legged hunting partner also senses that the time is near. He strains harder on the leash and sniffs the air with more purpose as the wolf in him moves closer to the surface. There is more urgency in that special relationship between hunter and dog that brings out the predator in both. Training sessions become more serious as the time is coming to

> trade canvas for feathers. The "couch potatoes," human and canine, are changing as the season changes. The season of the Hunter is coming. And like Havilah Babcock wrote, our "health is better in November." Oh yeah, it's coming, and I feel better already.

KUDOS FOR DOYLE

Editor,

I received the latest edition of your fine publication and was very pleased to see the nice article on Wayne Doyle's International Hunter Education Association Hall of Fame recognition. This award was well-deserved and long overdue.

Through my involvement in the hunter education arena, I have been fortunate to meet with hunter education folks from many states and two foreign countries. I can say without a doubt that the Kansas program is at the top of the heap, and much of the credit goes to Mr. Doyle. If people only knew the countless hours that he has contributed and continues to contribute to the program, they would be stunned. His dedication and drive go "above and beyond."

I am honored to serve as a volunteer instructor knowing that my leader is never going to ask me to perform a task he would not do himself, and in fact will probably be at my side when the hard work commences.

As much as I admire Wayne for his performance at his job, and as stated am honored to serve with/for him, I am much more proud of the fact that I can call him "friend." This retired Marine is the epitome of an "officer and a gentleman."

Ray Fischer Claflin





Anyone interested in birds should mark their calendars for October 3-5, 2008. The fall meeting of the Kansas Ornithological Society (KOS) will be held on the campus of Ft. Hays State University. This gathering gives bird lovers a chance to network and should attract a mix of participants, from professors and experts in field birding and research, to biology students, to people who simply enjoy watching birds in their backyards.

A Friday evening social kicks off the weekend. Saturday morning begins with "early bird" field trips to local hotspots. A welcome from meeting organizers on campus starts the day of paper sessions, which include informative and entertaining presentations dealing with many aspects of bird research. The presentations continue throughout the day, with a break in the middle for lunch and the popular "Birdwatchers Hour." This opportunity, just after lunch, allows some of the state's finest bird photographers a chance to show and discuss some of the work they've done over the past year. Past presentations during Birdwatcher's Hour have included trip summaries from Alaska, Central and South America, and Asia. Amazing photos of Kansas birds are also a common theme for this fastmoving hour. The paper session reconvenes after the Birdwatcher's Hour, and concludes in the late afternoon when KOS conducts a business meeting, as well as officer and board elections.

The annual KOS Banquet will be held on Saturday evening. It is a fun-filled event, with awards for outstanding contributions to bird conservation in Kansas, the Top Ten Birds of the Year seen in Kansas, and a keynote address by Geoff Hill, from Auburn University. He is one of the researchers involved with the recent search for the ivorybilled woodpecker in the Florida panhandle.

Sunday morning consists of field trips to local birding areas, including treks to Cedar Bluff Reservoir, Webster Reservoir, Wilson Reservoir, as well as Hays area hotspots. A compilation of field trip birds will occur at noon at a local venue.

The annual fall KOS meeting is a great chance to make new acquaintances, renew old friendships, and learn more about birds and bird watching in Kansas. Registration information can be found at the web for Kansas site the Ornithological Society at www.ksbirds.org , or by following a link from the KDWP website: www.kdwp.state.ks.us or in the KOS newsletter, the Horned Lark.

LIKED BLAIR'S ROADRUNNER

Editor:

I enjoyed Mike Blair's recent article on roadrunners and have always been fascinated by their behavior. The article mentioned that roadrunners will snatch birds/prey out of the air as they escape and then batter them on the ground to kill them. I want to share a story about seeing this happen.

Two years ago in August my sister and I traveled to Ft. Dodge to visit our parents. We are an outdoor family and enjoy watching wildlife. While we were visiting, a roadrunner came wandering through the yard. We watched it go to the neighbors' house where there were sparrows in the shrubs. As the sparrows flew, the roadrunner leaped up and snatched a sparrow out of the air and then "beat" the sparrow repeatedly against the ground to kill it. We were surprised that it could catch a sparrow in flight and even more surprised to see how the sparrow was killed. It was quite an experience and your article pointed out that roadrunners are quick enough to catch prey in flight.

On a side note, I grew up in Protection and take the local paper. (I now live in Manhattan.) There are roadrunners there and are mentioned frequently in the local news.

Thanks for the great article and magazine. Duke Harmon

Manhattan

IT'S THE LAW

with Kevin Jones

AW ENFORCE

You can make a difference.

You can take an active role in conserving our wildlife and natural resources. You can join a local club or nationally affiliated organization, which will provide opportunities to contribute your time and talents toward conservation.

Another way you can help is by taking an active role in reporting illegal activity. The Operation Game Thief program focuses on wildlife and natural resource crimes and provides a means for your report to be forwarded to an officer sworn to protect our valuable natural resources so important to our way of life.

Even a seemingly minor violation can have a significant impact when it occurs often, in ways that may not be readily apparent. Kansas Wildlife and Parks laws are enacted to protect our natural resources, as well as provide safe outdoor recreation opportunities. Wildlife and outdoor recreation laws allow wise use and assist with management of the state's natural resources, which benefit the public's health and its cultural, recreational and economic life. Maintaining compliance with these laws provides the support that allows our management programs to succeed.

It has been shown that when the public becomes involved in their community, the quality of life for that community as a whole improves. This rule holds true in the outdoor community, as well. People taking an active role in their outdoor recreation make a big difference, especially in the area of law enforcement. Violators should not be tolerated, and those who do violate should be brought to justice. You can make a difference by reporting violations through the Operation Game Thief toll-free number, 1-877-426-3843, or the web-site, www.ksogt.com.

PHEASANT, QUAIL SEASON CHANGES

While leaving the pheasant season the same as last year for 2008, the Kansas Wildlife and Parks Commission has approved a change in the opening date of pheasant season effective in 2009, moving it to the second Saturday in November. This year's pheasant opening date will be the first Saturday in November, as it has been since 2006, because many hunters already have made lodging and vacation plans for this fall. The pheasant season runs through Jan. 31, 2009.

The commission also approved a recommendation to return the quail season closing date to Jan. 31, effective with the upcoming 2008 season. The closing date had been the third Sunday in January since 2006. Surveys of hunters, landowners, and department staff indicated strong preferences to return the pheasant and quail seasons to their pre-2006 structure. Commissioners did not approve a department recommendation to return the opening of regular prairie chicken season in the east and northwest units to the first Saturday in November.

-KDWP News

2008 UPLAND BIRD SEASONS

PHEASANT - Nov. 1, 2008 through Jan. 31, 2009

QUAIL - Nov. 8, 2008 through Jan. 31, 2009

PRAIRIE CHICKEN - Sept. 15 through Oct. 15 (early season, east of U.S. 281 only); Nov. 15, 2008, through Jan. 31, 2009 (northwest and east units); and Nov. 15, 2008, through Dec. 31, 2008 (southwest unit).



www.kdwp.state.ks.us

KDWP has received a makeover in the form of a newly-designed website. While the new look is apparent, the site's content and organization remains familiar. Increased screen resolution accommodates more information and images, but navigating through the site is unchanged.

One change not readily apparent is more timely updating of information on the website. With the redesigned site, and the associated conversion to new internet servers, updates are posted immediately, rather than once each business day. More than 100 KDWP employees regularly update their respective pages on the website, from district fisheries biologists filing fishing reports on lakes they manage to state park managers posting the latest news from their parks.

Currently, the KDWP website records about one million "page views" per month. As the most comprehensive source of information on nature-based

recreation in Kansas, the website is an indispensable tool for outdoors-minded citizens of all ages.

All About Herps

Want to know what kind of amphibians, reptiles, and turtles can be found in Kansas, and exactly where? The Kansas Herpetofaunal Atlas tells you region-byregion, county-by-county what critters have been found in the Sunflower State, including amphibians, frogs and toads, salamanders, lizards, snakes, and turtles, as well as endangered and threatened species.

Maintained by Travis Taggart of the Sternberg Museum in Hays, the website - webcat.fhsu.edu/ksfauna/herps - is a clearinghouse and website for "herpers" throughout the state. It lists Kansas geological and county maps, species accounts, participant contacts, and a forum for participants to report and exchange information. A section called "Links" takes the viewer to projects, groups, weather, and other online herp atlases throughout the U.S.

The Kansas Herpetofaunal Atlas is an indispensable tool for anyone interested in reptiles, amphibians, and turtles in Kansas. Go there today and learn all about it.



DIGITAL IMAGE with Mike Blair

Enhance Fall Beauty with Digital Photography

he next two months will bring the year's finest colors to outdoor Kansas. Autumn beauty can be enjoyed again and again through digital photographs. Tweaking the photos on your home computer can add sparkle and saturation sometimes lost with film.

Subject matter is as varied as your imagination. Film a landscape to show a colorful scenic, or focus close on a leaf to feature a striking hue. Bright cloudy conditions with no wind reduce glare and help capture the land's true colors. For cameras with interchangeable lenses, inexpensive polarizing lens filters can produce breathtaking colors in full sunlight.

If you have picture software like Photoshop or similar programs, increase your photo's colors slightly by adding contrast and a bit of color saturation. However, these effects can be overdone, so go easy. Save the photo changes before printing on your deskjet or downloading to commercial printers. The results are worth the extra work.

BRING BACK LAW STORIES

Editor:

My husband has subscribed to *Kansas Wildlife & Parks* magazine for years. I'm an avid reader of your magazine and also a birder (although no fishing or hunting).

Your new format is attractive, but I surely miss one feature (at least not in the May/June issue): The legal side of your work, catching scofflaws and people who break the rules. They are a small minority, but "mess the nest" for many more law-abiding people. Folks need to know that you are out "on the beat" protecting our environment and the rules. Please reinstate the reports on enforcement. *Ellen Miller*

Lenexa



PARK

with Kathy Pritchett Director Receives National Award

Dr. Jerry Hover, director of KDWP's Parks Division, will receive the William Penn Mott Award for Excellence later this year at the National Recreation and Park Association Conference in Baltimore. With Hover's work in four state park systems over a 43-year career, he more than met the criteria to have demonstrated professional achievement in the field. Hover has helmed KDWP's Parks Division for the past 15 years, bringing the division through some very difficult times. During his tenure, Hover has faced record flooding tornadoes drought



Hover has faced record flooding, tornadoes, drought, budget cuts, restructuring, price increases and immense changes in customer initiatives.

Hover's responsibilities these past 15 years have included identifying, initiating, developing, and implementing new and improved outdoor recreational programs and developments using a holistic approach that takes all resources into consideration. He oversees the division in administration of the Land and Water Conservation Fund, AmeriCorps, and Recreational Trails grants as well as the programs associated with these grants. On Hover's watch, the division implemented the Kansas Outdoors Task Force and the Outdoor Kansas Kids programs, as well as initiatives such as long-term camping, an on-line permit system, development of an online reservation system, and camping cabins in Kansas state parks. We in the department congratulate him on this welldeserved recognition.



This past summer, salmonella-tainted summer spinach, tomatoes and peppers provided yet another collective dummy slap to our dependence on others for basic life needs. In the face of food contamination threats, one thing stands out as a simple counter measure: home gardening. Once much more than a simple hobby, the garden was a very important

Nature-based Kids

hub of family survival. In the post WWII era, everyone gardened as an outgrowth of "Victory Gardens" to help win "The Big One." Practically every family had canned goods and knew how to keep produce throughout the year. While we've experienced a drop in gardening activities in this century, the 2007 National Gardening Survey indicated growth last year for the first time since 2002. Now with contaminated food becoming nearly a weekly headline, perhaps more folks will get back to the dirt for basic food needs. And this will be good for wildlife conservation, as well.

As a younger generation growing up in a silicone-induced virtual world finds the need to get outside and "grow their own," they will develop at least more of a natural relationship with the outdoors. Anything that gets people outside and in the dirt has to be a good thing anymore.

In *Last Child in the Woods*, Richard Louv presents the unfortunate concept of "nature-deficit disorder." It's a damaging

generational affliction which can do nothing but hurt future conservation efforts. As the sale of hunting and fishing licenses declines, other potential contributors to wildlife management must step forward. Maybe some will indirectly come from something as simple as growing delicious garden tomatoes.

Louv notes that only 6 percent of children ages 9-13 play outside. While there is some enlightenment and efforts to provide more exposure of kids to nature, the simple act of raising one's own food could become a natural antidote for "nature deficit disorder." Perhaps an indirect positive effect from all the downfall of globalization of food sources will be a returning interest in the backyard garden and some of the natural world it brings. There is evidence supporting the theory that we'll all be better off if we spend more time outside. Our wildlife resources may depend on it.

REMEMBERING DR. CLARKE

Editor:

I read your recent article in the magazine about Dr. Clarke. I had the opportunity to take an undergraduate course with Dr. Clarke. He created an enjoyable atmosphere in the course, and he was genuinely enthusiastic. He was personable and friendly. Even after I completed his course he would see me and visit. He seemed to have time for others. If I remember correctly, he later became a department head at Emporia State. An excellent choice. He exhibited a politeness and manners indicative of his native Virginia. I couldn't have asked for a better teacher.

> Ron Sisk Lenexa



September marks the beginning of the hunting seasons, and, most notably on my calendar, teal season. For the sportsmen braving heat and bugs, teal can provide a great hunt and a delicious meal. Teal are small, but a bag limit of four teal can easily feed three people. Blue-winged teal are often some of the first ducks to begin passing through Kansas, with greenwings following close behind. Both are delicious.

This recipe involves the breast meat, and I like to fillet the meat from the breastbone, leaving two egg-sized pieces of meat. Wash fillets thoroughly and remove any shot. Keep the thin strip of meat from the fillet's underside, sometimes referred to as the duck tenderloin, attached to the larger piece.

Place a single pickled jalapeno in the center of a flat fillet and fold it in half, creating a ball. Using thin-sliced bacon, cut lengths just long enough to stretch over the ball and secure with toothpicks. Using too much bacon will result in heavy flare-up on the grill and undercooked bacon. Place on a hot grill and turn constantly for even cooking. When the bacon is done, so is the duck. Remove the toothpicks and enjoy. NO SAUCE! Dark juices will run from duck meat when done. Remember, it's not chicken. Overcooking duck will result in a meal tasting of liver instead of duck.



ast issue, we discussed using the poplar "unifilament" super lines to enhance the success of fishing with small jigs. For this issue, we'll look at jig weights and why the weight of the jig is important when casting or fishing vertically for crappie, white bass or black bass.

I like to use the lightest jig I can, but several factors influence my selection of jig-head weight. Water depth is one of the most important factors. In shallow water, I like eighthounce or lighter. If I'm fishing rocks or brush for crappie, white bass or smallmouth bass, I'll even cast a sixteenthounce jig, if I can get away with it. I believe the lighter jig sinks slower and stays in the strike zone longer. It's also easier to keep the lighter jig from snagging, whereas a heavier jig sinks quickly and is more likely to lodge in rocks or brush. I also believe an angler can impart more life-like action into a light jig and tube or plastic twister-tail or marabou body, eliciting more reaction strikes.

Another factor is the rod and reel you're using. You can cast and work a sixteenth-ounce jig with spinning or spincast tackle and small-diameter line. Of course, if you're fishing with casting equipment and heavier line, you'll need to use a jig with more weight.

Cover is the final factor. As I said, I prefer light jigs for fishing rocks or brush in shallow water. But if I'm fishing weeds and algae, a heavier, weedless jig may be necessary. In that type of cover, you'll probably also need heavy line and tackle, so quarter-ounce to three-eighths-ounce jigs will work best.

When fishing in water deeper than 10 feet, a heavier jig will get down quicker and provide better feel. For vertical fishing especially, a heavier jig will make it easier to keep slack from the line, allowing the angler to feel strikes.

For better jig fishing, use the lightest jig you can, factoring in water depth, cover and tackle type.



PASS IT ON

Editor:

I felt compelled to send in a note. I have never, in my 48 years on this planet, ever written a letter to the editor. That being said, I believe Mike Miller's backlash article in the July/August issue, that I just got today, hits the nail on the head.

I started my oldest daughter deer hunting at age five. Not a wise choice. Too hard for a youngster to hold still, and boredom was a real issue. However, she is now 25, and while not an active hunter is strongly supportive and will soon be married to a rabid hunter. I got smarter with my middle daughter and started taking her duck hunting from shore blinds, while she still had to sit in a little carrier. Keeping hearing protection on her was a chore, but movement in a blind was never an issue. Nor was boredom. There are always kingfishers, great blue herons, nutria, etc., around a pond or lake that are neat for little ones to get to see up close, when the ducks are not flying. She shot her first ducks and a mule deer buck larger than any her father has killed, at age 10. She is such a rabid hunter that two winters in a row when she was 16 and 17, she chose to go goose hunting in the panhandle and pheasant hunting in Kansas instead of going to the winter formal dance. I cannot begin to explain the feeling you get as a father when your teenage daughter has to explain to half a dozen hairy legged boys that she can't go to the dance with them because she is going hunting with her dad and little brother! I started her little brother the same way, with the same results. It has worked well with one of his friends and the neighbors' girl.

For our sport to survive, we must get more kids involved. I challenge every hunter to recruit at least two youngsters into the sport. If we don't, funding for the wildlife we love will dry up.

Thanks again for a great magazine. Keep up the good work.

> Kevin Deal Justin, Texas

LOOK BACK with Bob Mathews

SURVEY YIELDS TOP TEN FISHING EQUIPMENT INNOVATIONS

The American Sportfishing Association (ASA) is celebrating its 75th anniversary this year. To commemorate that milestone, ASA and the Recreational Boating and Fishing Foundation surveyed thousands of anglers across the country, asking them to name the most important fishing equipment innovations of the past 75 years. Survey results produced the "Top Ten" list below.

Original Floating Minnow – Introduced in 1936 by Rapala, this remains one of the most successful and widely copied hard lures in sportfishing's history.



Spring-loaded Bobber – Originally produced in 1947 by Nibble Nabber, and now manufactured by a variety of companies, this product made suspending a baited hook at a desired depth easier.

Mitchell 300 – The first commercially successful spinning reel, this 1949 innovation by its namesake manufacturer is still one of the most common reels used today.

Creme Plastic Worm – In 1949, when the Creme Lure Company introduced the first long-lasting artificial worm that looked and felt real, it changed fishing forever.



Closed-face Spincast Reel – Produced by Zebco in 1949, this reel made fishing easy and affordable to anglers of all ages and expertise.

Lowrance Fish Lo-K-Tor – Unveiled in 1957 by Lowrance Electronics, the "Little Green Box" introduced anglers to the use of sonar to locate fish.

Monofilament line – DuPont Stren's 1958 innovation improved the durability, affordability and casting ability of fishing line while reducing its visibility to fish.



Minn Kota Trolling Motor – The first electric gear-driven trolling motor, also introduced in 1958, gave anglers the ability to quietly maneuver and position their boats.

Fenwick High Modulus Graphite Rod – When Fenwick built the first super-sensitive graphite rod in 1972, it revolutionized fishing rod manufacture.

Shakespeare Ugly Stick – In 1976, Shakespeare created this affordable, unbreakable and dynamic fishing rod which is still in use today.

Letter Continued...

Dear Mr. Deal

I appreciate your passion and that you've passed it on. I would only comment that your decision to take your oldest daughter deer hunting may not have influenced her decision to not hunt as an adult. The fact that she will marry an avid hunter tells me the time you spent with her had a positive impact, and that one day she'll let you know that those hunts are some her most cherished memories - even if she was bored. The more I work in hunter recruitment and the more I talk to avid hunters, the more I believe that the desire to hunt comes from within. I believe that, after their first hunt, a certain percentage of voungsters will feel that hunting was the best thing they've ever done and will want to go again and again. Others will say that hunting was fun and exciting and they will go again if their friends or family go. The rest will say that it was fun but that they'd rather play soccer or computer games or music. It's up to us to make sure youngsters get the chance to experience hunting and to decide if they will hunt for the rest of their lives.

I've known many avid hunters who taught their children to hunt, just as you have. The youngsters take to hunting with very different attitudes. However, youngsters with parents who've spent time teaching them about hunting and the outdoors grow into well-adjusted adults who support and understand wildlife management. I truly believe that the one-toone attention you give your children when they go hunting with you will positively influence the type of adults they grow into. Time spent teaching a youngster to hunt, fish or just to appreciate the outdoors is important to their well-being and development. Thanks again for taking the time to write and for the time you've invested in Passing It On.

Mike Miller

LATE DEER PERMIT CHANGES

The Kansas Wildlife and Parks Commission has made three late additions to deer permits and seasons that will affect specific areas of northern Kansas.

In northcentral Kansas, any unfilled deer permit valid in units 7 and 8 will be valid in a special extended firearm antlerless-only season running Jan. 5-11, 2009. A detailed boundary map of this area will be included in the 2008 Kansas Hunting Regulations Summary, available Sept. 1 from KDWP offices or on the KDWP website, www.kdwp.state.ks.us.

On Fort Riley, three firearm deer seasons were set: Nov. 28-30; Dec. 19-23; and Dec. 27-30, as well as a special archery-only season (Sept. 1-21 military personnel only). In addition to these seasons, the regular statewide archery season (Sept. 22-Dec. 31) and the regular statewide muzzleloader season (Sept. 22-Oct. 5) are open on Fort Riley.

The final change involves Deer Management Unit 3, in northwestern

Kansas. In addition to any other authorized permits, any hunter may obtain an Antlerless-only Eitherspecies Deer permit valid in Unit 3. A limited number of these permits will be sold, first-come, first-served.



-KDWP News

MIXED REPORT ON DUCKS

According to the U.S. Fish & Wildlife Service (USFWS), the preliminary estimate of total ducks from the 2008 Waterfowl Breeding Population and Habitat Survey was just over 37 million. This is a 9 percent decline from last year's estimate but still 11 percent greater than the 1955-2007 average. In the U.S. and Canadian prairies, population estimates of many species declined, while populations increased in the boreal forest to the north, likely reflecting that birds flew over the prairies because of drier habitat there.

Overall, habitat conditions for breeding waterfowl in 2008 were generally similar to or somewhat worse than conditions in 2007. The total pond estimate (Prairie Canada and United States combined) was 4.4 million ponds. This was 37 percent below last year's estimate of 7 million ponds and 10 percent below the longterm average of 4.9 million ponds. The annual survey guides the USFWS's waterfowl conservation programs under authority of the 1918 Migratory Bird Treaty Act. The USFWS works in partnership with state biologists from the four flyways – the Atlantic, Mississippi, Central (which includes Kansas), and Pacific – to establish regulatory frameworks for waterfowl hunting season lengths, dates, and bag limits.

Estimates for three duck species popular with Kansas hunters include the following:

mallard estimated population of 7.7 million birds, similar to last year's estimate of 8.3 million birds and similar to the long-term average;

blue-winged teal estimated population of 6.6 million birds, similar to last year's estimate of 6.7 million birds and 45 percent above the long-term average; and

green-winged teal estimated population of 3 million, similar to last year and 57 percent above the long-term average.

G S P with Marc Mu UNTIN IT'S DOVE SEASON

September 1, the opening day of dove season is the unofficial kick-off of the fall hunting seasons. Millions of shells will be fired at the speedsters and some of them will even find their mark. The dove hunting tradition runs deep in Kansas as more than 50,000 hunters will try their luck. Here's a look at your best bets for finding doves.

FEED FIELDS

Doves feed early in the morning and late in the day, often in harvested grain fields. Burnt or once-disked wheat stubble and cut cornfields are excellent locations. Harvested sunflower fields will also attract loads of doves, but these fields may not be as common this year with high corn and soybean prices. Pre-season scouting will ensure openingday success. There are also KDWP-managed public areas managed specifically for dove hunting. Go to www.kdwp.state.ks.us and type "managed dove areas" in the search box for a list of areas.

WATERING HOLES

Doves also water a couple times a day and a pasture pond or windmill run-over can yield outstanding hunting. Banks with open mud shorelines are best.

ROOST SITES

Roost sites are difficult to find, and the window for action can be very narrow, although it can be fast and furious just before sunset. Overgrown pastures, shelterbelts, and locust or Russian olive tree groves often attract roosting doves.

The daily bag limit is 15 mourning and/or whitewinged doves. A growing population of exotic doves, Eurasian collared and ringed turtle, can also be taken without limit, although if a hunter's daily bag includes 15 morning and white-winged doves, any exotics must have a fully-feathered wing attached during transport. The dove season is Sept. 1-Oct. 14 and Nov. 1-16. This year, an exotic dove season will open Nov. 20 and run through Feb. 28, 2009. During the exotic dove season, only Eurasian collared and ringed turtle doves may be taken, without daily bag or possession limits.

A 20- or 12-gauge shotgun with improved cylinder or skeet choke, and No. 8 shot is an excellent combination for morning doves. The birds' fast, erratic flight makes them challenging quarry for even expert wingshots. Downed birds should be marked where they fall and immediately retrieved as they're tough to find in thick cover.

Dove meat is tasty. Wrap the breast around a jalapeno slice, then wrap with a strip of bacon, held in place with a toothpick. Cooked on the grill for just a few minutes and you have one of the most delectable delicacies in the outdoors!

DOVE SEASON CHANGES

The Kansas Wildlife and Parks Commission has approved hunting regulations concerning two exotic dove species - the Eurasian collared dove and the ringed turtle dove, neither of which are native to North America. This regulation will allow unlimited harvest of these species during specified seasons.

Under the new regulations, there will be no bag and possession limits for Eurasian collared doves and ringed turtle doves during the dove season. However, if the take of exotic doves causes a hunter's daily bag to exceed 15, the exotic doves must be transported with a fully feath-

The regular dove season opened Sept. 1 and runs through Oct. 14, then reopens Nov. 1-16. A separate exotic dove season will open Nov. 20, 2008, and run through February 28, 2009. During this season, only Eurasian collared doves and ringed turtle doves may be taken; there is no daily bag or possession limit; and doves must be transported with a fully-feathered wing attached.





FISH SQUEEZER with Tommie Berger

Fall Sampling

September generally signals the end of summer, and October is when water temperatures begin to cool. Fish respond to the cooler water by becoming more active and filling up on groceries for the winter ahead. As in the spring, most of our game fish in Kansas really like water temperatures in the 60-degree range – that is when they are most efficient in both eating and growing.

Fall is a great time for fisheries biologists to sample populations because fish move around as they search for food. Our fall sampling period generally starts in late September and may continue into November. Most biologists start "test netting" on their smaller lakes because they cool down quicker than the bigger reservoirs. They leave the reservoir sampling for the cooler part of the sampling season.

Biologists sample fish with gill nets and trap nets in the fall. These types of sampling gear are the most efficient in catching the variety of species we're looking for. Nets are set in the same locations from year to year at about the same times. That gives us trend information that we can compare. We weigh and measure each fish to get a feel for their body condition – are they fat or skinny? To put it simply, if we catch more walleye in gill nets this year than in years past, we assume our walleye population is increasing.

Data is entered onto the computer so we can compare it with previous years' data. We write up a report that we call "Management Plans/Progress Reports." We use this annual guideline to develop fishing forecasts, stocking requests, and management recommendations.

Fall is a busy time for biologists. If you want to see us now, you just might have to come to our office out on the lake – it's called a work boat.

ZEBRA MUSSELS DOCUMENTED AT LAKE AFTON AND MARION RESERVOIR

This past summer, The Kansas Department of Wildlife and Parks has confirmed the presence of zebra mussels in Marion Reservoir and Lake Afton, near Wichita.

"This is extremely frustrating because the spread of mussels can be prevented," said Goeckler, aquatic nuisance species specialist for KDWP. "All it takes is one irresponsible lake user to transport mussels from an infested lake to another water body. It is absolutely critical that all boaters and anglers take necessary precautions to contain any future infestation of zebra mussels."

Three simple steps - clean, drain, and dry - can help prevent the spread of mussels. Anglers and boaters must take these precautions to avoid transporting mussels from infested lakes to other waters:

• never move fish or water from one body of water to another;

• empty bait buckets on dry land, not into lakes;

• inspect boats, trailers, skis, anchors, and all other equipment and remove any visible organisms and vegetation; and

• wash equipment with hot (140degree) water, a 10 percent chlorine-and-



water solution, or dry for at least five days to remove or kill species that are not visible.

Zebra mussel larvae are free-floating and microscopic, which enables aquatic users to unknowingly transport them between water bodies. Since they were first documented in El Dorado Reservoir in 2003, zebra mussels have spread to four other Kansas lakes, including Winfield City Lake, Cheney Reservoir, Perry Reservoir, and now Marion Reservoir and Lake Afton.

Zebra mussels reproduce rapidly. Once introduced, new populations can expand quickly and cause great damage both economically and environmentally. Populations may become quite dense, and can be a serious problem for boats and water control structures. Zebra mussels attach to hard surfaces such as rocks, piers, and flooded timber. They may also attach to pipes, water intake structures, boat hulls, and motor lower units often clogging them to the point of malfunction.

The potential impact of zebra mussels on fisheries can be profound. Zebra mussels eat by filtering microscopic food from the water. Young fish and native mussels rely on this same microscopic food to survive.

According to a recent economic impact study, nationwide expenditures to control zebra mussels in water intake pipes, water filtration equipment, and electric generating plants are estimated at \$1 billion per year. Power generation alone expends \$145 million per year. Often, these costs are passed along to customers.

What's more, zebra mussels also have very sharp shells that can cut the unprotected skin of people and animals. Federal legislation has been passed to help prevent the spread of zebra mussels. If an individual is caught transporting live zebra mussels into Kansas, they may face up to six months in jail and fines up to \$5,000.

Learn more about preventing the spread of zebra mussels at KDWP TV, www.kdwp.state.ks.us.

TWICE AS NICE

Editor:

The first week of the 2007-2008 furharvesting season found me trapping a slough on the northern portion of my trapline. As usual, there was an abundance of sign from a variety of furbearers, including muskrat. In one particular

one particular area, the muskrats were

using a well-worn channel through the thick vegetation. The water was approximately 6 inches deep, which isn't deep enough to drown a muskrat in a foot-hold trap, so I chose to use a colony trap instead.

Colony traps are cage traps with an inward folding door on each end, which enables the trap to catch multiple animals. After carefully placing the colony trap in the channel, I was satisfied that I would catch a muskrat.

The next morning, I eagerly approached the trap, anxious so see if I had made a catch. From a distance, I could see something white in the trap.

"Some trash must have floated into the trap," I said, disgustedly, to myself as I waded closer to the trap.

Much to my surprise, the trash started swimming around, and I was elated to discover that I had just trapped my first albino muskrat! After carefully dispatching the muskrat, I placed the colony trap back into the channel. The following morning, I approached the trap with fond memories of the day before.

As I rounded the bend in the slough, I could see something white in the trap once again! I thought to myself that it couldn't be. There was no way I could have caught another albino muskrat.

But as I got closer, the white object started moving around inside the trap. To my disbelief, I had another albino muskrat.

After more than 40 years of trapping in Kansas, these two albino muskrats are definitely my most memorable and unusual catch. I have since had both muskrats mounted. I look at them almost everyday and smile as I reflect on this rare catch.

Bob Redeker, Olpe

EARLY MIGRATORY BIRD SEASONS

Federal frameworks for teal season were not available at the time of the June Kansas Wildlife and Parks Commission public hearing, but the commission approved the 16-day season if allowed by frameworks.

In the Low Plains Zone, which is that portion of Kansas east of U.S. Highway 283, the early teal season will be Sept. 13-28. In the High Plains Zone, which is west of Highway 283, the early teal season will be Sept. 13-20. The daily bag limit for early teal is four and possession is eight.

The commission also approved a recommendation for standard seasons and bag limits for Wilson's snipe, rail and woodcock. The commission approved a snipe season of Sept. 1 through Dec. 16, with a daily bag limit of eight and a possession limit of 16. The rail season will open Sept. 1 and run through Nov. 9. The daily bag and possession limit for rails is 25. The woodcock season will open Oct. 11 (the Saturday nearest Oct. 14) and close Nov. 24 (45 days). The daily bag on woodcock is three and the possession limit is six.

-KDWP News

MORE NESTING PHEASANTS IN 2008

This year's spring pheasant crowing survey period was April 25 through May 20. Rangewide, the 2008 Pheasant Crowing Survey (PCS) index was 18.4 crows per station, up 35 percent from 2007. Although hail or other conditions may have hurt birds in some areas locally, the overall outlook appeared good going into the nesting season.

In the northwest, the crowing birds counted increased 36 percent from 2007. In northcentral Kansas, four of seven comparable survey increased: routes two decreased; and one was unchanged. Southwest Kansas saw an average increase of 37 percent over 2007. In southcentral Kansas, an increase of 32 percent was observed over last year.

"This spring's increases in

the PCS index appears to reflect the good production that occurred in 2007," said Randy Rodgers, KDWP upland game bird research biologist. "Much of the state's 2007 wheat crop was set back about two weeks by a late hard freeze. This provided a longer time-frame for nests to hatch and chicks to grow large enough to evade harvest machinery. Although heavy late-May rains appeared to have hurt 2007 pheasant nesting in central Kansas, increases in the PCS index this spring, even in these areas, suggests the heavy cover that resulted from those rains provided good re-nesting opportunities last summer. And last winter did not appear to put unusual stress on pheasants."



PROFILE: with Mark Shoup

PROFILE: UNDERSTANDING THE RESOURCE



years as destructive exotic species (aquatic nuisance species, or ANS) have been introduced to Kansas waters.

"ANS have changed the realm of what we can do with aquatic resources," Mosher explains. "We have to be aware of them whenever

we sample, so we won't spread them. And we need to know how they will affect the food chain, so we're now studying the effects of zebra mussels and other ANS on zooplankton. It's a hot topic all over the country. and as competition for federal grants has increased, funding has declined."

The presence of aquatic nuisance species is one of many changes that Mosher, who has been with the agency for 35 years, has experienced. Perhaps the greatest was just coming to Kansas. Born and raised in Massachusetts, Mosher has a masters degree from U-Mass. Coming to Kansas was a leap of faith.

"One of my major advisors recommended a job

KDWP employs 11 research biologists. Eight in Emporia with Mosher include Jim Pitman (small game), Llovd Fox (big game/furbearer), Jim Stephen (aquatic), Ron Marteney (aquatic), Faye McNew (waterfowl), Matt Peek (furbearer/big game), Jason Goeckler (aquatic nuisance species), and Ruby Mosher (wildlife disease). Helen (migratory Hands birds. Cheyenne Bottoms) and Randy Rodgers (upland birds, Hays) round out the team.

opening in Kansas and told me, 'Tom, you'll learn a whole lot by going somewhere you never dreamed of going for awhile. Get outside your comfort zone.'

"I grew up right on the ocean, so it was a huge change. From my perspective, Kansas was about as remote as you can get. I missed the ocean and the clear lakes and streams."

But the true outdoorsman in Mosher soon found appealing things about his new home. "I found that crappie and white bass fishing was really a treat, something we didn't have in Massachusetts. And when I saw the size of the white-tailed deer here, I was thrilled. And the ducks. There's something about seeing 60,000 ducks in one flock and huge bucks in the woods that helped me make the adjustment."

For the outdoor resources

of Kansas, we're fortunate it was a lasting adjustment and not just "for awhile."

For more information on KDWP research or to report ANS species or other concerns, phone 620-342-0658.

When most people think of KDWP biologists,

we think of those folks who stock fish, plant wildlife habitat, or are involved in the myriad of things that help make fishing and hunting in the Sunflower State great. But there is another kind of biologist employed by the agency -11 of them, in fact - whose charge is research. often the evaluation of work other biologists do.

Tom Mosher is one of these researchers, based in the Emporia Research and Survey office. As fisheries research coordinator, part of his job, and those of the aquatic research biologists who work with him, includes evaluating management practices of the agency's Fisheries Section. This can involve evaluation of length and creel limits, movement of certain stocked

species (such as saugeve). angler exploitation of sportfish, lake-specific fish growth rates, effects of prev species on sportfish, effects of commercial fishing on sportfish, and more. Information gleaned from such research is critical in determining future fisheries management efforts that work. For the angler, it just means better fishing.

Mosher also monitors mussel harvest in Kansas streams and serves on the Endangered Species Committee. He and other KDWP aquatic researchers also work on national committees that affect species management. Mosher recently served with a national committee to write an Asian carp plan, is part of a Mid-American committee to manage paddlefish, and has coordinated a Midwestern effort to evaluate

saugeve in seven states as part of the Walleve Technical Committee of the North Central Division of the American Fisheries Society.

While all this may seem like a lot of work for a small crew, it has gotten even more complicated in recent

KDWP-RELATED BILLS

The 2008 Kansas Legislature and Gov. Sebelius have approved several new laws affecting outdoor recreation in Kansas. Bills passed into law this year include the following:

Senate Bill 267 – allows the court system to suspend or revoke Department of Wildlife and Parks (KDWP) privileges for noncompliance with a KDWP citation, similar to what is currently done with traffic citations;

Senate Bill 474 – removes the requirement for a field trial permit for field trials conducted on controlled shooting areas (CSA) during the CSA operating season. The bill also removes the requirement for residents to possess a hunting license to hunt prairie dogs; **House Bill 2657** – modifies the current statute concerning operation of a motorboat on state waters, prohibiting operation on state waters of a motorboat with exhaust noise emitting a sound level in excess of 92 decibels on the "A" weighted scale when subjected to a stationary sound level test. The owner of a motorboat in violation of the noise standard would have 60 days from the date of the violation to bring the vessel into compliance, and the boat may not be operated on state waters until the department certifies compliance; and

House Bill 2923 – provides annual hunting and fishing licenses at no cost to honorably discharged resident veterans with certified service-related disabilities of 30 percent or more, and appropriates revenues from the State General Fund to reimburse the Wildlife Fee Fund for the licenses.

-KDWP News

WATERFOWL SEASONS

Waterfowl season dates and bag limits were set at the August Wildlife and Parks Commission meeting in Hoisington. KDWP made the following recommendations for duck seasons, which were all approved:

Bag limits, possession limits, shooting hours

- A daily bag limit of five ducks, which may include no more than two of the following species: scaup, redhead, wood duck. In addition, only one duck from the following species may be included in the daily bag: hen mallard, mottled duck, pintail, canvasback.
- A daily bag limit for coots of 15, and a daily bag limit for mergansers of five, which may include no more than two hooded mergansers. The coot and merganser seasons will run concurrent with the regular duck seasons.
- Possession limit for all species (ducks, coots, and mergansers) will be double the daily bag.
- Shooting hours for all species will be one-half hour before sunrise to sunset.

Duck Season Dates

- High Plains Zone Youth Sept. 27-28.
- High Plains Zone (West of U.S. 283) first segment, Oct. 4-Dec. 30; second segment, Jan. 17, 2009-Jan. 25, 2009.
- Early Zone Youth Oct. 4-5.
- Early Zone first segment, Oct. 11-Dec. 7; second segment, Dec. 20-Jan. 4, 2009.
- Late Zone Youth Oct. 18-19.
- · Late Zone first segment, Oct. 25-Dec. 28; second segment, Jan. 17, 2009-Jan. 25, 2009.

(For details on zone boundaries, see the 2008 Kansas Hunting and Furharvesting Regulations Summary, available at most KDWP offices and license vendors.)

During the youth seasons, youth must be 15 or younger and accompanied by an adult, who cannot hunt. Two changes this year are that the supervising adult must be at least 18 years old (rather than 21 years old as in previous years), and the adult does not have to have a hunting license or stamps required of waterfowl hunters.

For Canada geese, season segments will run Oct. 25-26 and Nov. 5-Feb. 15, 2009, with a daily bag limit of three. For whitefronted geese, the season segments will be Oct. 25-26; Nov. 5-Jan. 4, 2009; and Feb. 7-15, 2009, with a daily bag limit of two. The light goose season will be for two segments: Oct. 25-26 and Nov. 5-Feb. 15, 2009, with a daily bag limit of 20.

All waterfowl possession limits will be twice the daily bag limit, except for light geese, which will have no possession limit.

For falconers, federal frameworks allow no extended season in the High Plains Zone. A Feb. 25-March 10, 2009 season will be held in both the Early and Late zones. Because of the 107-day hunting limit imposed by the federal Migratory Bird Treaty, and the increased length of the September teal season from nine to 16 days, there are seven fewer days left for falconers in the Early and Late zones, and none available in the High Plains Zone.

For more details, visit the KDWP website, www.kdwp.state.ks.us, or phone 620-672-5911.

-KDWP news



GENETIC TESTS ON MOUNTAIN LION

n March, KDWP obtained the pelt of a mountain lion that reportedly had been killed in Barber County in November of 2007. At the time, agency staff could not determine if the animal was wild or not, and some question still remains on the issue. Muscle tissue samples from the pelt were collected and sent to a federal research laboratory in Missoula, Mont., for analysis with two goals in mind.

"The first goal was to determine whether the mountain lion is of North or South American descent," says Matt Peek, furbearer research biologist for KDWP. "It's believed that most captive mountain lions are of South American descent, and a South American lineage would indicate that the lion either had been a captive or was of captive descent."

Peek noted that some captives are of North American descent, so while a positive test for North American genetics would not prove the mountain lion was wild, it would indicate that it might be.

"In this case, the lab determined that the lion's origin was North American, indicating a potentially wild lion," Peek explains. "While this test does not conclusively prove the lion was wild, there was no outward indication it had been in captivity, and KDWP officials believe it probably was wild."

The second test being conducted is commonly referred to as "DNA fingerprinting." This is an attempt to use DNA to link the Barber County lion to a specific population of lions. To date, the results of this DNA fingerprinting have not been definitive, and the source population remains unidentified. Peek explains why:

"There are several possible explanations, but the most likely scenario is that the lab does not have sufficient DNA samples from the source population to positively link the Barber County lion with a particular population. Consequently, the lab has continued to add DNA from additional lions from other states to its database in hopes of making a connection."

Peek adds that while some Kansans are eager to know the results, testing is a time-consuming process. Additional DNA samples have been added from Colorado and New Mexico. Recently, 300 samples were added, primarily from Wyoming. Several weeks are required to add each genetic addition to the database and make a comparison. Lab and KDWP officials are still hopeful the source population may be positively identified. However, with the genetic similarity of mountain lions across the West, a positive identification may not be possible.

The likelihood of obtaining conclusive results will decline substantially as comparison with lions from nearby states is completed. Nearby states are where the Barber County mountain lion most likely originated, assuming it is, in fact, wild.

KDWP will provide additional updates when more is known, or when conclusive results are obtained.

-KDWP news



BOATING ACCIDENTS DROP

Figures recently released by the United States Coast Guard reveal that in Kansas, boating accidents have decreased by 40 percent – from 42 in 2006 to 26 in 2007 – but fatalities rose from five to six, the highest number in six years. Of the six fatalities, four involved capsized paddle-sport craft such as kayaks and canoes. One involved personal watercraft (PWC) and the other a motorboat. Alcohol was involved in eight of the 26 accidents and three of the six fatalities.

Top causes for all accidents remain fairly consistent with previous years. Operator inattention, careless/reckless operation, passenger/skier misbehavior, excessive speed, and alcohol use are the top five contributing factors. Alcohol use is the leading contributing factor in fatal boating accidents.

KDWP staff are asking all boat owners and operators to help reduce fatalities, injuries, property damage, and health care costs related to recreational boating accidents by taking personal responsibility for their own safety and the safety of their passengers. Essential steps include always wearing a life jacket and requiring passengers to do the same, never boating under the influence, and completing a boating safety course.



he North American river otter, *Lutra canadensis,* is a semi-aquatic member of the weasel family. Otters are 34-53 inches long and weigh 10-30 pounds. An otter's dense, oily coat is dark brown to almost black with a lighter silvery patch on the throat. River otters occupy an important niche in aquatic and riparian ecosystems. They are considered the top aquatic predator, playing a crucial role in the control of prey populations. River otters are valuable ecologically, aesthetically, and culturally. They are also a potential source of revenue as a fur-bearing species.

River otters make their homes in streams, rivers, and lakes. They live in dens near the shoreline. Otter dens can be natural cover such as rock overhangs, log jams, or under tree roots. More frequently, otters live in burrows or bank lodges created by other mammals, mainly beavers.

Otters are carnivores. Prey consists of fish, aquatic invertebrates, frogs, mussels, snakes, turtles, and occasionally birds. Crayfish are most important in summer, but the diet shifts almost entirely to fish in the winter.

Before European settlement of North America, river otters were one of the most geographically widespread animals on the continent. Otters were plentiful in Kansas and occupied most permanent streams and water bodies from Florida to Alaska. Human settlement of the West during the nineteenth century brought severe degradation of otter habitat. Water pollution, soil erosion, and the widespread draining of wetlands for agricultural production decimated available habitat. This, along with unregulated harvest fueled by the burgeoning fur trade, caused substantial declines in otter numbers. By the early twentieth century, otters were considered extirpated from Kansas, as well as much of the Midwest. In 1977, river otters were petitioned to be added to the endangered species list.

otters Réturn

by Marcus Jones *Pittsburg State University graduate student*

photos by Mike Blair associate editor/photographer, Pratt

Once extirpated from the state, otters were reintroduced in a few select areas in the 1980s. Over time, and perhaps with some immigrants from Missouri and Oklahoma, this amazing predator has become more common in eastern Kansas.

Marcus Jones photo

Wildlife & Parks



The author trapped wild river otters along strip lake shorelines and river bridges to obtain specimens for his research. All otters were trapped live, fitted with transmitters and released.

From 1976 through 1998, 21 states including Kansas and its neighboring states began efforts to reintroduce river otters to their former range. Wild otters live-trapped from healthy populations in the southeastern and northwestern U.S. were released to suitable habitat. The largest of these projects was in Missouri. Between 1982 and 1992, 845 otters were released throughout that state. These reintroductions were extremely successful. Missouri otter populations took off rapidly and have even reached nuisance levels in some areas.

In 1983 and 1984, Kansas reintroduced 17 otters to the south fork of the Cottonwood River in Chase County. Today, river otter numbers are rebounding in eastern Kansas from the combination of this release, improving habitat conditions, and natural expansion of reintroduced populations in Missouri and Oklahoma.

Now, otter presence has been reported in most major river systems in eastern Kansas. Otters in the upper Neosho River are possibly the result of reintroduction efforts in Chase County, while otter sightings in the Kansas, Marais des Cygnes, Marmaton, Missouri, and Spring river systems can be attributed to natural expansion from Missouri. Kansas otters are fairly plentiful on the Marmaton and Marais des Cygnes rivers and their tributaries, but the largest population is likely in the unreclaimed surface mining land in the southeastern corner of the state.



Se all

Trail cameras were used to scout areas of otter activity. Eight otters were captured with modified foot-hold traps. Each one was taken to Pittsburg where a veterinarian anesthetized and implanted a radio transmitter. They were released the next day in the same area where they were trapped. To learn about otter movements, the author then tracked the otters using a radio receiver.



Unreclaimed mined land offers excellent river otter habitat, which can be measured by the amount of shoreline on a body of water. This is where otters spend most of their time foraging. The shoreline holds the highest concentrations of prey species such as invertebrates and fish. Surface coal mining in southeastern Kansas left thousands of strip lakes. These lakes are usually long, narrow, and deep, with steep banks and many fingerlike branches. These conditions pack large amounts of shoreline into

a small area. Water bodies with a high degree of shoreline diversity such as these provide more shoreline than a water body that is circular. In addition to the amount of shoreline, the steep nature of the banks and loose, unconsolidated substrates make den building easier.

In the fall of 2006, a research project began investigating the habitat, movements, and home ranges of river otters in Kansas. The project was a joint effort between the Kansas Department of Wildlife and Parks and Pittsburg State University. This project used radio telemetry to track otters as they moved through their natural habitat.

Otters for this study were trapped at Crawford State Park, Farlington Fish Hatchery, and Bone Creek Reservoir in Crawford County, and also from privately owned mined land in Bourbon County. Eight animals were captured using small leghold traps modified to reduce injury. Upon capturing an otter, it was persuaded to enter a transport barrel where the trap was removed. From there, the otters took a ride to Pittsburg to be fitted with a radio package. Trapped otters were taken to Dr. Richard Peterson D.V.M., where they were anesthetized and radio transmitters were surgically implanted in each animal's abdomen. The animals were allowed to recover overnight and were released the next day at the same place they were trapped.

Otters were then tracked on foot weekly and twice by air over the next year. Otters are mostly nocturnal; as a result, a portion of the tracking was done at night. Detection range of the radio transmitters increased greatly when the animals were active. The signals, a pulsed beep, were detectable at 100 yards or less when the otters The river otter is at the top of the aquatic food chain and is a carnivore, feeding on aquatic invertebrates, frogs, mussels, snakes, turtles, and occasionally birds. An adult otter can be 53 inches long and may weigh as much as 30 pounds.

were resting in a den, but this range would increase to 400-500 yards when the animals were out of the den actively foraging. This study revealed an interesting association between otters and beavers. The otters were found most often inside dens constructed by beavers, and they were even found sharing the dens with these animals. Otters were also found, more than once, using boat docks as their den sites.

One objective of this project was to describe any seasonal difference in the habitat used by otters. Animals in this study were found to use lake-type habitat in the winter months and stream habitat in the summer. In the summer of 2007, two otters were found miles away from the lakes they used as their winter homes. An adult female from the fish hatchery was found seven miles downstream on Dry Wood Creek, and an adult male from Bone Creek Reservoir was found more than eight miles away on Dry Wood Creek.

Detecting the presence of river otters in your area is easy, since the signs they leave are fairly conspicuous. Otters leave a five-toed track that can be found on the banks of lakes, ponds, and





streams, as well as on trails between bodies of water. Their tracks can be distinguished from raccoon tracks by their shorter, rounder toe pads and webbing between the toes.

The most easily found sign of otters is scat. Otter scat is usually unconsolidated and contains fish scales or crawfish parts. Otters communicate with others of the species by leaving a mucous-like scent secretion. This is produced by the anal gland and is deposited at spe-

cific places along the bank, called latrines. Latrines are scent-marking stations that are visited by otters that live or pass through a section of stream or shoreline. These scent marks can communicate such information as identity, territory boundaries, and reproductive status. Latrines can be several meters in diameter and contain dozens of scat piles and gland secretions. The aroma of this secretion is a very distinct combination of musk and fish. The presence of otters can be determined by this smell alone. Otter tracks (below) can be distinguished from raccoon tracks by their shorter, rounder toepads and webbing between the toes. Other sign that otters live near you would include scat, which usually includes fish scales and crawfish parts.



Marcus Jones photo

Taking part in Kansas otter research proved to be tiring, yet exciting, and a rewarding way to fulfill my graduate degree requirements at PSU. The amount of time spent searching for these animals and interpreting their sign throughout 18 months of field work allowed me to get to know the species and to understand their behavior. The curious nature of these animals made close encounters with them very interesting. From secretly watching them catch and devour fish on the ice of a partially frozen lake, to surprising them by getting too close and having them bark, growl, and seemingly curse at me (they never seemed to enjoy my company), observing them was always a treat.

The future is bright for otters in Kansas. Modern conservation practices and environmental regulations should preserve or improve existing habitat. Further research and pertinent management decisions will help otters expand into suitable habitat throughout the state. 🛠

1944 Flood Control Act Doesn't Make Good on Promises

by Angela Magstadt North Dakota Water Education Foundation (reprinted with permission from North Dakota Water)

> photos by Mike Blair associate editor/photographer, Pratt

This is the first article in a twopart series, reprinted from North Dakota Water magazine with permission from the North Dakota Water Education Foundation, about amending the 1944 Flood Control Act. This installment will provide background information on the Act and the promises it made to North Dakota and the other nine Basin states.



The year was 1944. Bing Crosby, Frank Sinatra, and Judy Garland topped the pop music charts. The average yearly wage was \$2,400. A loaf of bread cost 10 cents and a gallon of gas was 15 cents. More than 60 years later, Jesse McCartney and Katy Perry are number one on the pop charts, the average yearly wage is \$48,201 (2006 data), a loaf of bread costs around \$2, and gas is almost \$4 per gallon. How times have changed — haven't they?

Wildlife & Parks



Only about 75 miles of the great Missouri River's 2,500-mile total length touches Kansas, forming our northeastern border. However, since Milford, Tuttle Creek and Perry reservoirs empty into the Kansas, which empties into the Missouri, water management decisions made to accommodate freight barges on the Missouri can affect Kansas lake users.

1944 Flood Control Act

The U.S. Army Corps of Engineers (Corps) is currently operating the Missouri River using a Master Manual based upon the 1944 Flood Control Act. This legislation was passed with the vision of providing the Missouri River Basin with flood control, low-cost hydropower, navigation, irrigation, municipal water supply, recreation, and wildlife, as well as a way to employ the servicemen who were returning from serving in World War II.

"It's not surprising that 64 years after passing through Congress, the '44 Flood Control Act doesn't live up to its expected promises. Controversy has surrounded this Act since its formation," says John Cooper, chairman of the Missouri River Association of States and Tribes (MoRAST), a regional interstate organization formed to help resolve issues of concern to the states and tribes of the Missouri River Basin.

In the Flood Control Act's infancy, the U.S. Bureau of Reclamation (Reclamation) and the Corps did not get along with each other because of competition in Congress for funding. So when it came to the formation of this plan, neither agency would back down from what it thought was the best way to control the river. "Reclamation laughed at the Corps' promise of navigation, and the Corps mocked the thought of irrigating the Great Plains, or what it called 'the northern reaches of the Great American Desert.' They went at each other pretty heavy," Cooper says. "Reclamation argued that minimum rainfall averages should be the basis for water control measures, and the Corps picked the average wet cycles aimed at flooding issues to try to illustrate that they ought to be in control of the ultimate design."

The Pick-Sloan Compromise

As the debate continued in Congress, many people from the Great Plains argued that there was no way these two agencies could compromise to create a plan that would address all these issues, so Congress discussed creating a agency called new the Missouri River Authority to create a unified plan. Neither the Corps nor Reclamation wanted another bureaucratic organization trying to dictate what should happen on the Missouri River, so they figured it was in their best interest to try to compromise.

The plan that resulted from this compromise is now known as the Pick-Sloan Missouri Basin Program, named for Lewis Pick, director of the Corps' Missouri River office and William Sloan, director of Reclamation's Billings, Mont., office.

"The 1944 Flood Control Act has a shady past in terms of how we would do business today," Cooper says. "Today we would have to go through a host of environmental studies, cost-benefit ratios, study the power and irrigation needs, and flood control issues. All these issues would have to be put together in one unified plan and it would have to be presented to Congress. Then there would be a series of separate working groups to hash through it. But that isn't how it was done back in the early 1940s. So in essence, we're stuck with a 63-year-old plan that has no promise and no flexibility to address current system needs. It's a big dilemma and it grows more contentious with each passing year of drought in the upper basin."

Flood control

The Act has succeeded in reducing the large floods in the Missouri River Basin. More than \$31 billion in damages have been saved since the construction of the first dam. In 1997 alone, the reservoirs provided more than \$6.8 billion in flood control, primarily for downstream states.

Irrigation

The other goals of the Flood Control Act haven't been the successful story flood control has, however. The Pick-Sloan plan promised the upper basin states 5.3 million acres of irrigation as a repayment of sorts for the lands flooded by the mainstem reservoirs. But the promise of irrigation never materialized, and only about 560,000 total acres have been realized, a majority of which occurred in Nebraska and Kansas, two states that lost no land to the formulation of the reservoirs.

Navigation

Navigation on the Missouri River has never reached the levels of economic impact that was projected in 1944, which was to haul 12 million tons per year. Navigation peaked in 1977 at 3.3 million tons and has decreased since then. In 2006, barges only moved 250,000 tons on the Missouri River, the amount moved daily on the Mississippi River. Cooper points out that in 2007, the



The Flood Control Act of 1944 focused on flood control, irrigation and navigation. Only flood control has lived up to its billing, saving more than \$31 billion in damages since construction of the first dam. Only 560,000 acres of the promised 5.3 million acres have been irrigated, and navigation peaked at a fourth of the tonnage predicted to be moved down the river annually.

Wildlife & Parks

Wildlife & Paths



In the 64 years since the Flood Control Act was passed, recreation on the river and its reservoirs has become a major contributor to the economy, especially important to smaller communities near the reservoirs. When water management decisions don't consider impact on recreation, especially during drought, economic losses to recreation-based businesses can be severe.

upper basin released 5.7 million acre feet of water to the lower basin to support less than 220,000 tons of navigation. "We're burning a lot of water for navigation for no good reason," he says. "We are in the ninth consecutive year of drought, and we're still running water like we had it. It doesn't make sense, and it can't last when all three of the upper basin storage reservoirs are at all-time record low levels."

Hydropower

Hydropower, municipal water supply, recreation, and wildlife all are affected by the decreased reservoir levels caused by outdated operational constraints, exacerbated by the current drought. Back when the Flood Control Act was being debated, the upper basin states were promised reduced hydropower rates. Rural Electric Cooperatives were in their infancy then, and hydropower was supposed to serve as the foundation of REC use as well as for irrigation development. But because of low water levels on the reservoirs, the Western Area Power Administration (WAPA), the organization that markets hydropower to wholesale customers, is having problems meeting firm power demands.

According to Cooper, since the reservoirs started seeing substantial impacts of the drought in early 2004, WAPA's rates to wholesale customers have increased 37 percent because of the cost of power that had to be purchased from the open power grid market as low water levels behind the dams cut into hydropower production.

Municipal water supply

The Flood Control Act also promised a dependable municipal water supply for the communities in the Missouri River Basin. The lack of adaptive management during the drought is affecting that promise, as well. In 2003, the Standing Rock Sioux tribe in southern North Dakota, virtually ran out of municipal water when its intake in the upper reaches of Lake Oahe plugged up with silt as water levels fell. This affected some 10,000 residents, and caused the closure of the Fort Yates hospital and school. The Chevenne River Sioux tribe in South Dakota experienced a similar problem until its water intake was relocated last year.

Recreation

Recreation, a component of the Act that Cooper describes as "almost an afterthought," has become a huge industry, largely surpassing navigation in economic impacts in the Missouri River Basin. Fishermen, hunters, and campers spend a lot of money and time in and around the mainstem reservoirs, and recreation has had significant impacts to the local economies in these communities. According to a 1998 Draft Environmental Impact Statement, more than 4 million people spend more than 10 million "visitor days" at developed recreation sites along the Missouri River every year. This generates at least \$84.7 million in annual economic benefits. However, current management operations are hampering recreation, and these communities are feeling the negative effects of the low lake levels. In the mid-1990s, the South Dakota Department of Game, Fish and

Parks did an overall visitation and economic impact study of walleye fishing on Lake Oahe, and determined an approximate \$27 million impact. In 2005, after the level of Lake Oahe had fallen some 30 feet, it did the same review to determine the revenue that is being lost because of low lake levels. The study found that about 50 percent of this income is being lost due to low water conditions. While there hasn't been an official study in North Dakota, Greg Power, chief of the North Dakota Game and Fish Department's fisheries division, says he wouldn't be surprised if the 2008 season shows a 50 percent reduction from the late '90s when the lakes flowed and the fishing was good.

It was also reported at a recent MoRAST meeting that for the first time, the number one fishery in North Dakota will be Devils Lake, not Lake Sakakawea. Power says this is because water levels on Sakakawea are continuing to decline while the levels on Devils Lake are continuing to rise.

Fish and wildlife

Outdated management of the Missouri River further complicates the recovery of three threatened or endangered species that live in or near the river – the interior least tern, piping plover, and pallid sturgeon.

"Their habitat is so greatly altered, the future of these species is in jeopardy," says Paul Lepisto, the regional conservation coordinator of the Izaak Walton League's Missouri River Initiative. Founded in 1922, the Izaak Walton League is one of the oldest conservation organizations in America.

Cooper says that when the 1944 Flood Control Act passed, the Endangered Species Act (ESA) didn't exist. The ESA was enacted in 1973, so now the Corps has to be cognizant of the river's ecological health, attempting to restore the populations of threatened and endangered species, as well as prevent additional species from being listed. This challenge



Mandatory releases can severely impact recreational boating, but angler access can also be restricted. The Flood Control Act 0f 1944 passed during a much different era when water-based recreation was neither as popular nor as important economically as it is today.

is one the Flood Control Act never anticipated.

"I've worked with the Missouri River in both North Dakota and South Dakota for 35 years and I am very concerned that the 1944 Flood Control Act has major flaws, exacerbated by the continuing drought and by the failures of what was promised for navigation and irrigation as two of the main beneficial uses of the overall project," Cooper says. "The ecological health of the river is now in jeopardy, and we need to change something to address modern-day major issues such as sedimentation, environmental recovery, municipal water supply, and continued hydropower service during drought conditions. The Missouri River ecosystem is in a sad state of affairs and we seem to avoid any opportunity to make meaningful changes."

Need for change

MoRAST is requesting that the Corps do a section 216c study to look at current conditions along the basin and whether or not the current master manual is accomplishing the goals and objectives.

"We need to look at the 1944 Flood Control Act and honestly evaluate the changing conditions that have occurred since the Act was passed, and then approach Congress in an effort to make any appropriate changes that will address the needs of the entire basin, taking into account our modern-day priorities. This would include significant input from the tribes, who were all but ignored when the original Act was passed," Cooper says.

There is a consensus among

most of the states in the Basin that the current law needs to be changed, but the biggest challenge is getting all affected states and tribes to work together to accomplish this lofty goal. "We all need to look at the big picture," Lepisto says. "We need to pull together as one basin, not upstream versus downstream and get our leaders to see that we need a change for the overall good of the Missouri River Basin and the health of its ecosystem. It is no secret that this will be a difficult task because of all the past bitterness and competition between states, but we need to bury the hatchet. We need to put history behind us to do what is best for the future." 😯



The Missouri River Association of States and Tribes (MoRAST) is asking for a review of the current law to consider water resources, fish and wildlife, as well as the impacts to the economic, historical, cultural, and social resources.

Kansas Pronghorn Hunt Redefining Success

Pronghorn, topographic relief, cover, calm days, ground without goat-heads or grassy sandburs, isolated water — these are all things that can be found in western Kansas, but they have one commonality: they are all very scarce. Because of the scarcity of Kansas pronghorn, archery hunters should take a close look at their definition of success, as well as their expectations.

by Matt Bain *district wildlife biologist, Colby*

photos by Mike Blair

A limited population, private land, and wide-open prairie make Kansas pronghorns anything but easy. But if you're willing to set reasonable goals and challenge your skills and patience, this can be a rewarding hunt. In today's world of instant gratification and hype over big trophies and limits, expectations are often blown out of proportion. Some drawn to hunting have become shooters instead of hunters. Common results of unreasonable expectations may include unethical chase or frustration, and these likely contribute to a nation-wide decline in the number of hunters. Every hunter remembers the mystique and excitement of pursuing and harvesting that first animal. At that time in a hunter's life, expectation is not to harvest something; that is only a hope. Hunters should naturally evolve to understand that a successful hunt

is sharing an outdoor experience with someone they look up to or enjoy spending time with, and

learning something about hunting and something about the quarry. Beyond that, an increasing knowledge of probability and healthy level of optimism will build a person as a hunter.

I can think of no better hunt than a Kansas archery pronghorn hunt to force a person to redefine their expectations or their definition of a successful hunt. Much of the reason for this is associated with the relative scarcity of pronghorn in Kansas. Although extremely common in portions of their range, pronghorn, by their nature, are a rare breed.

Pronghorn do not belong to the same family as deer, elk, or other North American hoofed big game species. Instead, the pronghorn is the last remaining representative of a once diverse family. This survivor can be found only in North America's Great Plains and the Inter-Mountain West. Pronghorn have horns, but they are the only animals in existence that have forked horns with a sheath that is shed annually.

Their physiology is as unique as their anatomy. Pronghorn are the fastest land animals in North America, and the second fastest on Earth next



The author with one of his Kansas archery pronghorns. One only need notice the flat, coverless background in the photo to understand how challenging Kansas pronghorn hunting is with archery equipment.



Wildlife & Parks



Kansas pronghorn populations are less than one per square mile, and their range includes only a couple of tiers of western counties. The archer's best chances may be during the rut when a territorial buck is tending a harem of does.

to the cheetah. Their over-sized eyes are located close to the crown and protrude from the side of their head, giving them a high, 300-degree circle of vision without turning their head. This animal is an eyeball with legs, built to amazing specifications to evade predators.

Given the multiple facets of their rarity and extensive adaptation for predator avoidance, these animals are deserve great respect. And respect, along with a few curse words, is exactly what you'll hear from those who have ever pursued this animal with a bow and arrow. A pronghorn's adaptations to avoid predation are active at any distance where the threat is visible. However, a synergy of these adaptations doesn't seem to take effect until the threat closes to within about 80 yards. This is probably due to the hunting strategies of the predators that they have adapted to avoid over thousands of years. In today's western Kansas landscape, pronghorn have also become used to farming and road activity, such that these animals are often not threatened by tractors that pass by at 50 yards. In most cases, they do not perceive tractors and normal passing vehicles as a threat; however, once a figure that resembles a man or other predator is realized to be within that comfort zone of about 80 yards, they have an amazing ability to vanish into

the prairie wind. For these reasons, they are a near impossible target for archery equipment, but generally a much easier target for today's firearms.

Pronghorn sparsely occupy approximately the westernmost two to three tiers of counties in Kansas south of I-70. Even where they are most abundant, their average density is only about one pronghorn for every square mile. This one pronghorn could be a buck, doe, or fawn. Compare this density to many areas in Wyoming, South Dakota, Colorado, and Arizona where you can, on average, find more than 10 pronghorn in the same square mile. Simply because of this rarity, Kansas pronghorn hunters are at a greater disadvantage than hunters in any other state. The only other states within the pronghorn range that rival Kansas for low densities are Washington and Oklahoma; however, pronghorn country in these states coincides with topography and brush, which allows much greater success than the flat plains of Kansas.

Pronghorn hunters in Kansas are very lucky if they are able to locate and have access to two or three bucks per season that are more than 1.5 years old. Because of a lack of options, the archery hunter has to be extremely careful to not be detected so that his ability to keep hunting the animal is not daunted. Typically, these few bucks are located several miles away from each other, and the road is an all-too-common part of the hunt.

Despite the extreme challenges associated with low pronghorn densities, high western Kansas winds, lack of topographic relief and isolated water, and generally tough hunting conditions, about 150 archers choose to hunt pronghorn in Kansas every year, and about 18 (12 percent) harvest a pronghorn. Archery permits are available over the counter, and sales have doubled over the last two decades. Because pronghorn in Kansas are such a limited resource, firearm and muzzleloader permits are available through limited draw, and there are usually about 1,000 hunters competing for about 150 permits.

Archery hunters generally attempt to exploit several behaviors to put them within 40 yards of their quarry. The most effective technique throughout the pronghorn range is to sit in a blind or windmill next to a water source. Archers are

generally pursuing pronghorn during the high August and September temperatures. During rut, which generally occurs in the second half of September in Kansas, pronghorn are doing a lot of chasing and end up logging several miles a day. This spike in activity increases their need for water. Because of the laws of probability, a hunter's best chance to intercept a pronghorn at water, is to find isolated water. Because rangeland fragments are small and incur relatively high cattle stocking rates, water sources are extremely common in western Kansas, and it is difficult to find isolated water. Furthermore, Kansas has some of the highest rainfall of the pronghorn range, and they often move great distances to utilize ephemeral pools, or more commonly glean the water they need from the vegetation they eat. In fact when succulent vegetation is available, it is thought that pronghorn will go several days or weeks without taking a drink. Nonetheless, with patience, this can be an effective way to get within bow range of a pronghorn.

Another tactic is to sit in a blind or dugout near a "skid", which is a place where pronghorn traditionally cross a fence. Pronghorn will rarely jump a fence; rather, they cross under the bottom wire. Because they're adapted to a landscape with little obstruction, they are not comfortable crossing fences, and will often pass by miles of fence to cross at a specific, traditional point. Skids are generally located in welltraveled areas where the bottom wire of the fence is higher than normal, or the ground below the fence is lower than normal. In very active skids, pronghorn actually improve the crossability of a skid over time by dredging the soil with their brisket.

Because the rut coincides with the archery season in Kansas, decoying can also be an effective way to pull a buck to within bow range. Territorial pronghorn bucks defending harems of does will often aggressively pursue an invading buck. A decoy is most effective during the pre-rut when bucks are sorting out their dominance hierarchies and when estrus does are present. Decoy effectiveness can be increased by locating bucks that are already aggressively defending an estrus doe, or by





<image>

locating bucks that are in areas with enough cover or topography to allow the hunter to approach within a couple hundred yards before showing the decoy. Another advantage to using a decoy is that it often provides the archer with cover to draw the bow. Secondary only to the magnificent western Kansas wind, major challenges with this method are that it happens fast and you never know exactly where the pronghorn will stop if it comes in, or if it will stop at all. The most common result of a decoy attempt is for the buck to ignore you completely or to come into that comfort zone of about 80 yards, and stare at you for what seems like several hours. I have had very mixed results with a decoy, as it seems to depend on the personality of that particular buck; however, after a long hot day of failed attempts, there is nothing like the experience of a close encounter with a charging pronghorn.

Another potentially effective method is to spot a pronghorn bedded in an area with some topographic relief or cover, find enough cover within the 60 degrees that they are not constantly surveying, and patiently crawl to within bow range. The keys to spotting and stalking pronghorn are patience and a moderate amount

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of wind to cover noise; plan on several hours per attempt.

I began hunting pronghorn in Eastern Colorado in 1998, and since have hunted them primarily in Kansas, but also Wyoming. I've learned enough to know I will forever be their student, and that there is no perfect technique or method. The only thing in common among hunts that have resulted in harvesting an animal is persistence. I don't know what my successful-attempt to failed-attempt ratio is, but it would have to be close to one in a hundred. With this degree of futility, you might wonder why a person would keep hunting, but it probably goes back to their definition of success.

I think back to one of my most enjoyable prong-

horn hunts, and what made it such a successful experience. It was a morning on one of those ranches that approaches the potential of the shortgrass prairie: rolling, expansive, and teeming with life and the subtle beauty endemic to the prairie. The still, damp air was heavy with the smell of the ancient ocean floor that now underlies the chalk flat prairie. I spotted a mature buck and doe bedded on a small rise above a depression. Using the subtle topography and a single yucca, I spent about 4 hours crawling to within 20 yards of the bedded buck. As I was drawing my bow behind the yucca, my arrow fell off of the rest onto the bow's riser and made a very quiet, but very alarming "tink". As the pronghorn fled to the next county, I was at first very frustrated. Then I realized how lucky I was to have closed that distance without wind, and was thankful for the exciting encounter. That turned out to be my closest attempt that season, and to this day I vividly remember that morning and the lessons of that season.

Often the success of a hunt can be measured in factors more valuable than meat or horns. That morning I stepped into a place and system that was operating under the same timeless forces that constructed it. Even though I did not kill that buck, I walked away with an appreciation for being part of such a system and for the stewards who had the foresight to maintain it. I experienced a great challenge in the outdoors, but perhaps more importantly I was reminded that, as humans, our ties to the land and these forces cannot be severed.

To me, pronghorn hunting is primarily a reason to get my feet on the ground, spend time in vast country, and interact with one of the most unique and challenging big game animals on the planet. I have the highest respect for these survivors and the country they inhabit, and a day spent in their world is a success in itself.



Wildlife & Parks







Preserving Memories

text and photos by Dustin Teasley graphic designer, Pratt

Occasionally, an angler or hunter will have that perfect day. It could be because of the quality of the game or fish taken, or it might be because of the quality of the accompanying hunters or anglers. Either way, there are times when a taxidermy mount will be the best option to preserve that memory. Early preparation for that day will ensure a life-long memory. Heather wanted to harvest a mature whitetail. Season after season, my wife had tried for a trophy buck without success. Finally, during an end-of-season hunt in 2006, she connected on a 130-inch eight point with her muzzleloader. Frustrations and anxieties that had built over several seasons were forgotten as she walked up to her first big buck. Emotions ran high for something long awaited.

We took pictures and headed back to town. On the way, we discussed whether to have this deer mounted. She was unsure about spending hundreds of dollars. We didn't have a great place for it in our small house. Was this animal big enough to mount? Did we have enough freezer space to store the head for a time? Was it field dressed correctly?

In the end, we knew what to do. It was her first mature whitetail. She took it with a muzzleloader. We were together when she got it. We wanted to remember this hunt for a long time. Sure, we would mount the deer.

Hunters and anglers always strive to take that big buck or land a monster fish. And when it finally happens, memories are worthy of preserving in a special way. Photos are great, but to commemorate a truly special deer or bass, one thinks of a taxidermy mount. However, a quality mount requires a significant financial commitment, so several things must be considered – where the trip took place, type of game and how it was taken, who took the animal, and how unique it was.

Preparation for a pleasing mount is important. Often, the first concern is getting the game meat home and into the freezer, but ideally the decision to have a taxidermy mount done should be made soon after the kill. Although it is important to cool down a carcass to prevent spoilage and hair or feather loss, further steps are needed to ensure a quality trophy mount and proper meat care. If an animal is to be mounted, work begins in the field.

The most commonly mounted Kansas species is the whitetailed deer. The unique antler structure of deer, and the effort required to take a true trophyclass buck make it a popular candidate. Of course, other facts surrounding the hunt can also be figured in, and does are sometimes mounted. Even a pair of matched shed antlers found on a springtime outing is a trophy. Any deer with an inter-



esting story might qualify.

Game birds and waterfowl such as pheasants, quail, ducks, and geese are popular species for taxidermy mounts. First birds, banded birds, falconry harvests, or rare waterfowl species like canvasbacks, may be mounted to preserve special memories.

Kansas fish species such as walleye, largemouth bass, and wipers are among the top-ranked fish to mount. Local taxidermists also see popular species from other regions, like muskie, trout, salmon, and saltwater fish.

A little homework before actually going afield will also help. Check with others who have nice mounts and inquire about the work. Get names, locations, and prices of taxidermists who do





A word of caution: You get what you pay for. If you pay \$100 and the going rate is \$400, you'll likely get a fourth of the standard quality. A good taxidermist will not use your stuff to practice on. Some taxidermists have employees who will complete your mount. Make sure you see examples of everyone's work at the business.

When we made the decision to mount my wife's muzzleloader buck, I called Tom Bowman, of Wakefield, a taxidermist who had done some quality waterfowl mounts for me several years ago. Bowman gave me some helpful tips on preparing my wife's deer for mounting. I visited his shop, and he took the time to advise me about field preparation of other animals.

good work. Find out how long the process will take and how much of a deposit is required. You will also want to know a taxidermist's experience level with a given species and how long the business has operated. Some taxidermists are very good with one kind of game and less experienced with another.

On deer, it is important to skin the animal and cool it as soon as possible. The hide is easiest to remove just after a kill. When skinning a deer or other big game animal, make as few cuts, and provide as much hide, as possible. A rule of thumb is to cut the hide around the deer at the last rib. This allows room for knife drift while maneuvering the deer around. Then, cut the hide along the center of the backline to a point just behind the ears. Using a saw, cut off the front legs below the knee joints. Then, start removing the hide from back to front. Skin forward, pulling the legs through the hide without cutting. Do not skin the skull. Instead, remove the head by sawing it off. Wash any blood off the hide and roll it up with the head fully exposed. Then, store it in a freezer until transport to your taxidermist.

It is best not to salt the hide before freezing. Animals must be properly fleshed before salting. Salt lowers the freezing temperature needed to freeze flesh. In some cases, salt prevents

freezing and allows bacteria to break down the hair follicles. This can cause slippage when the hide is tanned.

Measurements are not necessary. The taxidermist will take measurements to determine the proper form to use. This expert will also do any final skinning and fleshing before the skin is dried, salted, and sent to the tannery.

When hunting with a guide, the outfitter typically takes care of all field preparation. You will need to provide the taxidermist's name, address, and phone number for shipping purposes. Skulls of large antlered animals such as elk, moose, and caribou



carcass starting at the ribs and pulling forward. Pull the legs through the hide. When the hide is worked off to the base of the skull, remove the head. Roll up the hide with the head exposed, place in a plastic bag and freeze until it goes to a taxidermist.

are typically split for shipping purposes. If you plan on scoring the animal for a record book, be sure the skull is not split when shipped. The animal's skull must be fully intact and dried for 60 days to be eligible for a record book listing. Shipping unsplit skulls can increase the shipping rate by as much as 1,000 percent.

If you bag a good bird and have to dispatch it, don't wring its neck. Check with your taxidermist on ways to dispatch a bird without damaging a potential mount. It is best to take several good bird specimens for the taxidermist to choose from. Make sure bag and possession limits or paper towel, wipe any blood from feathers. This is especially critical on white-feathered birds like snow geese. Place a cotton ball in the mouth to absorb any fluids that may drain from the bird. Place the bird in a nylon stocking or in a cylinder of old newspaper to protect the feathers from damage during transport in the field. If possible, retrieve birds yourself. Dogs can damage feathers while retrieving. Freeze as soon as possible. Anglers have unique options for mounting fish. A trophy fish

are not violated. Using a wet cloth

Anglers have unique options for mounting fish. A trophy fish should be photographed, weighed, measured for length and girth, and put on ice until frozen or taken to a taxidermist. Freeze a fish after first wrapping it in layers of wet tea towels, t-shirts, or old bed sheets. Place in a plastic bag. Wrapping fish in textured cloth may permanently imprint the scales or skin of the fish when mounted. Make sure the skin or scales are not exposed to air in the freezer. This could dry them out,

Major damage should be kept to a minimum for a quality mount. Multiple specimens allow the taxidermist to find the best for a mount. Sometimes, as with the wing on this first pheasant, damage occurs. Visit with your taxidermist to determine what options are available that will hide these imperfections.





Few bird hunters aren't immediately taken with the beauty of a ringneck, and a mount of a youngster's first rooster can commemorate a special day afield. Cotton in the beak can keep feathers clean. Placing a bird in a cone of newspapers or in a nylon stocking can prevent damage to feathers during transport.

Birds are smaller and easier to handle than big game. However, they pose their own set of problems. The hunter should always collect the best specimen possible to mount. First kills, banded birds, or uniquely plumaged birds chosen for mounting, but damaged, may pose challenges for the taxidermist. Shattered wings, blood- stained feathers, and missing plumage may require a rethink on whether or not to mount. When planning to mount a damaged animal, take pictures before freezing and share these photos with your taxidermist. Discuss mounting options that can disguise these problems.







resulting in curled or lost scales or damaged skin that is hard to work with. If your fish is put on ice and taken to a taxidermist immediately, the meat can be salvaged for food. and dynamic displays, especially as full-body mounts. Here, extra care is needed to prevent hair loss. Harvested

Other species such as furbearers can make interesting

animals should be placed whole in the freezer until taken to a



Coyotes and furbearers are ideal candidates for full-body mounts that make attractive additions to any trophy display.

Replicas are increasingly popular as an option for mounting fish. These fiberglass composites are created from photos and measurements that you provide. Photos and measurements are very important to this process. Photograph a fish immediately to capture its best color. Color quickly fades when a fish is stressed from handling. Measure the length from tip of the closed mouth to the end of the tail. Also, measure the largest girth. These tools will help aid the taxidermist in recreating your catch as accurately as possible. The caught fish can then be released or eaten. Fish replicas are highly durable and done right, indiscernible from skin mounts.

> taxidermist. Be sure to lay the carcass flat. Multiple species should not be stacked in a freezer. Stacking increases the density of flesh to freeze. Longer freeze time could allow bacteria to damage the flesh, resulting in hair loss.

> If only the skin of a bobcat, raccoon, or other furbearer is going to be displayed, you can skin the animal. Roll the hide up with the face on the outside, place in a bag and freeze. If you don't have freezer space, skin the animal and take it to a taxidermist. They will then flesh it so it can be shipped to a tannery. I recommend going through a taxidermist for this type of tanning rather than shipping directly to a commercial garment tannery, since they often finish hides for garments. Faces, feet, and edges are not used in garment making, and furs may come back with whiskers worn off, fur on ears rubbed to the skin, and holes in the pelt from the stretching process. 🖅





Game birds make beautiful mounts and may represent a rare harvest or simply a beautiful specimen, such as this wood duck. Hunters should take extra care in the field with a candidate bird to ensure that the taxidermist can produce a quality mount.

I've sometimes learned the hard way that displaying a mount requires careful consideration. A drake wood duck looked great above the couch, and the cat thought so, too. And yes, I learned the dangers of commercial tannery with my first bobcat. I replaced the duck and am making a teddy bear for my 2-year old daughter with the bobcat pelt.

Displaying an animal, fish, or fur can bring a lot of character to a home or office. It also provides a 3-dimensional memory of a treasured time in the field. Find a good taxidermist and follow their guidelines, so your mount will live up to your memories and last many years. Then, that monster walleye or opening-day ringneck will always be there for instant recall of cherished moments.



Each time the author and his wife glance at this mount, they easily recall a special day together and the culmination of many hours of scouting and hunting.

Make A Ripple With Teamwork

by Troy Smith area manager, Byron Walker Wildlife Area

photos by Mike Blair photographer/associate editor, Pratt

Effective habitat conservation and range management require hard work, but when on display at a public wildlife area, the effort can be contagious.



am frequently amazed how a small thing can make an ever-widening ripple in life. Take for example the article, "Turning Back the Clock – Byron Walker Wildlife Area," I wrote for the November/December 2006 issue of *Kansas Wildlife* and Parks magazine. This article was part of the ripple resulting from habitat work I had done on Byron Walker Wildlife Area for some years. It also caused a ripple as a result of actions taken by some individuals that read the article. Let me explain.

For several years, I had been working to reduce woody plant invasion in the grasslands on Byron Walker Wildlife Area. This work had not gone unnoticed. A neighboring rancher saw the improvements made as a result of tree removal in 1995 and contacted our local Natural Resource Conservation Service (NRCS) district conservationist hoping to get more information. The district conservationist then contacted me, and with the help of several local groups, we set up a field day where almost a dozen contractors demonstrated their equipment, removing trees on Byron Walker Wildlife Area. More than 80 individuals attended the event and learned more about how removing invading trees from prairie benefits wildlife and cattle. At that event I was asked to write an article for *Kansas Wildlife and Parks* magazine about the habitat work being done on the wildlife area and the results of the work day.

It would be easy to think that the ripple faded and that life once again leveled out. However, I soon found that the article had started a new ring. Within a couple of weeks of publication, I received a call from Ted Swan, president of the Ark Valley Quail Unlimited Chapter in Wichita. He had read the article and, being a life-long quail enthusiast, was interested in learning more about my work and quail management. He invited me to give his group a 45-minute presentation on my quail management efforts last June.

My presentation went as planned, but if you've ever talked quail management with a bunch of dedicated quail hunters, you won't be surprised to learn that my 45-minute presentation turned into a four-hour discussion of quail management techniques. Almost everyone there had a hunting area that they wanted to describe and get my input on. It was truly an enjoyable night.

Again, you might expect that the ripple was over. Not hardly! Within a week, Swan called and asked if their club could do a habitat project on Byron Walker Wildlife Area. This started yet another ripple. I worked up three potential projects for the Ark Valley Quail Unlimited chapter to review. These projects were shrub planting, tree removal, and disturbance disking. The club reviewed each project and selected shrub planting because it created "usable space" where none was available otherwise.

The project would be conducted on 93 newly-purchased acres that needed development, and 190 existing acres that were also lacking adequate escape cover for quail. During the winter of 2007-2008, my staff and I marked and mowed a grid pattern on the two selected sites where rows were 100 yards apart. Sandhill plums were to be planted in clumps 200 yards apart within the row, with each successive row being staggered so that plum "thickets" would be alternating at 100-yard intervals between rows. The end result: quail would always be less than 50 yards from escape cover, a critical component of good quail habitat.



The author helped organize and host a field day at Byron Walker Wildlife Area, and as a result, many local ranchers learned about tree-removal equipment and services available to them.

Everything was ready by March, 2008, when Southwestern Nurseries of Kingman was contracted to do the planting. Using a 30-inch tree spade on a tractor, live plums growing near the proposed planting sites were moved to make thickets. One plant was placed in the center of each planting, surrounded by five



When a local Quail Unlimited chapter read about the programs in place at Byron Walker, they asked to become involved. With their help, the author was able to enhance quail habitat by moving plum thickets.

more in a pentagon shape. Twenty-six thickets were created on the two sites. Timing was perfect as the plugs were almost dripping with moisture when they were planted. The plum tops were pruned to improve survival and the sod between the plugs was killed with glyphosate to reduce competition for water. As of June, survival has been excellent and many of the plants bloomed and produced fruit.

I met again with the Ark Valley Quail Unlimited chapter on June 30 this year to show them the results of their project on Byron Walker Wildlife Area. The discussion was lively and there was a good exchange of ideas. As you can now guess, the ripple continues. They want to do another project this fall.





Let's Go Again!

et's go again," — words every hunter or angler wants to hear after they've taken one of their children hunting or fishing. It's natural to want your children to love the same traditions as you and to pass on your passion for the outdoors. And it works. A report by Responsive Management, *The Future of Hunting and the Shooting Sports*, concluded that youngsters introduced to hunting at a young age by a family member are more likely to hunt avidly later in life. It's referred to as the "natural path" to hunting. It's a safe bet that fishing is similar.

And our hunting and fishing traditions need those passions passed on. Nationwide, the number of hunters has declined from nearly 16 million in 1991 to 12.5 million in 2006. According to the U.S. Fish and Wildlife Service's 2006 National Survey of Fishing, Hunting and Wildlife-Associated Recreation, the number of anglers in the U.S. declined from 35 million in 1996 to 30 million in 2006. State agencies across the nation are scrambling to recruit new hunters and anglers as well as retain current hunters and anglers. And everyone has asked the question, "Why?"

We've all made assumptions about why the numbers have declined, and most of them have been wrong. According to Responsive Management, the most common reason given by people who spend less time outdoors or have quit hunting is "not enough time/other commitments." Those "other commitments" include family obligations, work and other hobbies. There are many more things to do today than there we had 30 years ago, especially if you live in an urban area.

And more of us live in urban areas than ever before. Hunters and anglers have always been most likely to come from rural communities. Since 1950 when 36 percent of our population lived in rural communities, we've been migrating to urban areas. Today, only 20 percent of us live in a rural community.

I believe there are some compelling reasons to introduce youngsters to hunting and fishing. Hunters and anglers pay for all major wildlife management programs. And wildlife programs supported by hunters' and anglers' license dollars don't just benefit game animals and fish. A wetland enhancement project may be aimed at attracting ducks, but the truth is that twice as many nongame birds and animals will benefit. Hunters contribute to our economy, too, spending \$22.7 billion annually and supporting 593,000 jobs. Anglers spend \$42 billion on fishing-related expenses.

So, if our wildlife resources and outdoor traditions are important to us, they need to be important to our young people. For that to happen, youngsters have to experience hunting and fishing.

I've been taking a completely unscientific poll for several years. I've talked to many avid hunters and anglers about how they got started and who mentored them. And I've found that many were drawn to hunting and fishing at a very young age, even without a parent or close relative who mentored them. In fact, a surprising number sought out a mentor because they wanted to learn more about hunting and fishing.

So I've come up with a 20-50-30 rule (again, purely unscientific). Let's say we have 100 youngsters, 9- to 13-year-olds, and we can pair each of them and a parent with an experienced mentor for the day (hunting or fishing). I believe that 20 of these kids will have the time of their lives and will want to hunt or fish again and again. These are the kids that were "drawn" to hunting and/or fishing. Fifty of these kids will have fun, and they'll want to go again if their friends go. The other 30 will probably enjoy the experience, but they'll say that there are other things they'd rather do.

We need to ensure those 20 become avid hunters and anglers. But we also need the 30 who won't hunt or fish later in life. Because of their experience they will have an understanding of our outdoor traditions and will be more likely to support scientific wildlife management and our privilege to hunt and fish.

If you're a parent, you may not care if we sell enough licenses so that I have a job with this agency, and you may not be concerned about the hunting and fishing heritage. But I know you care about your kids. I'll say this without hesitation: few activities can compare to hunting and fishing when it comes to spending time with your kids. That one-to-one attention, the life lessons learned and the bonds you'll build as you teach and learn together will definitely play a positive role in your child's development.

