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NEBRASKAland

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A pair of Canada geese cup their wings in preparation for a landing. Photo by Eric Fowler.

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INSIDE

My First Deer • Pheasants for All • Duck Dogs
Platte Basin Autumn • Wind Turbines and Prairie Chickens
Falcon Lady • The Hull Story • Nebraska Game Day 1922



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NEBRASKAland Magazine

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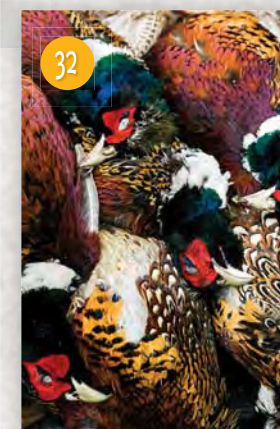


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Cover: A white-tailed deer of any size is a trophy for first-time hunters this time of year. See our first deer gallery on page 62. Photo by Steve Zechmann.

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On a foggy morning in Hastings, Paul Julian snapped this photo of a jogger at sunrise.

"I grew up in Gering and always enjoyed being able to see the Scotts Bluff National Monument. I moved away almost 8 years ago, but I still go back to visit family often and when I do, I always head out to the Monument to photograph the beautiful scenery," said Lindsey Keller of Lincoln.



A Note from the Nebraska Game and Parks Commission

This year marks the 20th anniversary for Nebraska's mentored youth hunting program, which has grown to be one of the largest in the nation.

Nebraska's mentored youth hunting program began with six Pheasants Forever chapters – Cornhusker, Elkhorn Valley, Great Plains, Loup/Platte Ringnecks, Otoe County, and Republican Valley – in 1996. These chapters wanted to do something to address declining hunter numbers that at the same time provided kids the opportunity to experience the excitement of hunting in Nebraska.

In particular, they wanted to focus on youth who didn't have a parent, uncle, aunt, grandparent or older sibling to pass on Nebraska's rich hunting tradition. That first year, 207 volunteer mentors took 118 kids hunting who might not have otherwise had a chance to go.

Working in cooperation with the Nebraska Game and Parks Commission, as well as volunteers from the National Wild Turkey Federation and Ducks Unlimited, Pheasants Forever has expanded the program to include more than 1,000 volunteers who each year help approximately 800 youth experience the camaraderie, beautiful scenery and thrill that a Nebraska hunting trip offers. Since its inception, the program has allowed 13,000 Nebraska youth to hunt.

Passionate volunteers and generous donors are to thank for the success of this program. To give you an idea as to their dedication, volunteers are already planning for the 2017 programs.

For more information, visit Outdoornebraska.gov/mentoredhunts.

– Jeff Rawlinson
Nebraska Game and Parks
Commission Education Manager



This mule deer doe posed for Ivy Lunbery near a highway in Hyannis.



The meadowlark is known for its beautiful song. "Often as I drive along a country road, I pass one sitting on a fence post," Ivy Lunbery said.



State Fair Winner

Congratulations to Lorvey Stark, of Lincoln, whose photograph of a black-throated bunting southeast of Anselmo was the winner of the "Wild and Scenic Nebraska" category at the Nebraska State Fair.

Stark captured the photograph during a weekend trip to the Sandhills with friend Mark Lukin. "Mark and I were attracted by the huge pile of corn just off the highway and stopped to take photos of the grain bins and the corn pile. As we were leaving the area, the bunting and several other birds landed near us on the dry weeds. It stayed with us and posed for several shots."

Canon 70D, Tamron 150-600 mm
Exposure: 1/800 sec., f/6.3, ISO 200.



EXPLORE YOUR STATE PARKS.

Zach Hanson of Omaha took this photo last August at Indian Cave State Park. Hanson said, "I took my camera off of my tripod and used the deck railing for this shot. Long story short, I left my tripod behind and went home. The next weekend was the first time I realized what I did – I knew exactly where I left it. I waited until Monday to call the park office to see if by chance someone turned it in. To my surprise someone did turn it in. Saved me several hundred dollars and helped renew my faith in humanity."



In Nebraska's state parks, an adventure waits over every ridge and around every bend. Moments wait to be had and memories beg to be shared. This fall, get outside and discover seventy-seven parks and enjoy unlimited experiences. No matter what you choose to do outdoors—it'll be time well spent.

To get inspiration for your park adventure, visit OutdoorNebraska.org/Explore.

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Curt Blum of Lincoln sent in this image of a robberfly that has caught a damselfly.



This time-lapse composite image of "The Orbiter" ride at the Lancaster County Fair was taken by Curt Blum.

Bug Cup

Dear Mr. Reigert,
I just received my *NEBRASKA*land cup in the mail. I am so thrilled to finally receive this. I have been looking for the bug for over 5 years now, and there is quite a story behind it, but don't think I can tell it now.

Most of the time I don't have the bug named right but it is still lots of fun.

We really enjoy this magazine, all the great articles, pictures, recipes and just learning more about this great state we live in.

Keep up the good work and again thank you so much, you have made this lady's day!

Janelle Downing
Norfolk, Nebraska

Dear Janelle, you have made my day!
It is not that often (unfortunately) that I hear back from our readers to learn "their" story.

And, your compliments are very welcome, especially on this Friday.

Thank you again for writing to me, and for being such a loyal subscriber.

With warmest regards,
Tim

FIREARM DEER HUNTING STARTS NOVEMBER 12TH

Don't forget that on Nov. 12-20 firearm hunters take to the field. If you are hunting small game, please be aware of deer hunters and, above all, wear HUNTER ORANGE as well to be seen.

Send your comments to:
Jeff Kurrus, Editor
NEBRASKAland Magazine
P.O. Box 30370
Lincoln, NE 68503
or e-mail Jeff.Kurrus@Nebraska.gov
Please include your postal address and telephone number. Letters may be condensed and edited. Photographs are also welcome.

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A Mammal Brief

Eastern Spotted Skunk

By Lindsay Rogers

Coming in at about half the size of the striped skunk, the eastern spotted skunk (*Spilogale putorius*) is easily differentiated by not only size, but also coloration. Striped skunks have two characteristic white stripes along either side of their backs. Spotted skunks have multiple bands or spots and white-tipped tails.

Spotted skunks, similar to striped skunks, are omnivores with a large part of their diet coming from insects, small animals, bird eggs and berries or fruit. Spotted skunks are the only North American skunk species that can easily climb. As such, they are often found in woodland areas including riparian wetlands and forests, but can also be found in prairies and cropland.

Historically, eastern spotted skunks could be found statewide, but their population has declined since the 1940s. Fur harvest records report a harvest of 35,260 individuals in 1944, declining to only 33 by 1982. A similar population decline was documented in surrounding states, and biologists are not certain of the cause of their decline. Presently, spotted skunks are protected year-round in Nebraska and reports of them are rare.

If you see an eastern spotted skunk, please report your sighting to Nebraska Game & Parks Commission Furbearer Specialist Sam Wilson, sam.wilson@nebraska.gov. ■

Lindsay Rogers is an outdoor education specialist with the Nebraska Game and Parks Commission.

PHOTO COURTESY OF THE MISSOURI DEPARTMENT OF CONSERVATION

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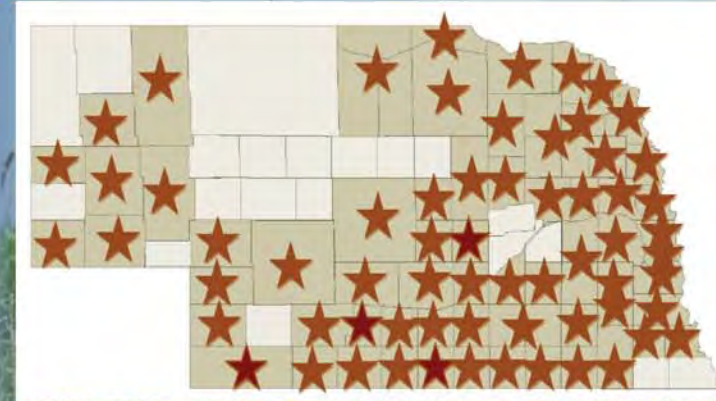
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Travelogue

By Erin Lenz, Nebraska Tourism Commission

Ashland

Voted one of the 10 most beautiful towns in Nebraska, this area has scenic golf courses, fun family activities and a beautiful state park. **Ashland**, Nebraska, located between Lincoln and Omaha, is the perfect break from the large cities it sits between. It's vibrant with a small-town feel that will keep you coming back for more.

Spend a long weekend at **Eugene T. Mahoney State Park**, where there is plenty to do in the fall and winter seasons. Stay overnight in a cabin or at the Peter Kiewit Lodge, and enjoy a meal in the Lodge Restaurant or movie in the theatre. In the spring and summer seasons, splash around at the water park, go paddleboarding at the Owen Marina, play a game of mini golf or take a trail ride on horseback. Walk up the water tower and enjoy the views of the Platte River Valley and hike through the many nature trails close by. When it turns cold, enjoy the winter activities the park offers such as sledding, cross-country skiing, ice skating, ice fishing and holiday activities like bonfires and hayrack rides.

For wildlife lovers, take the family on a ride through **Lee G. Simmons Conservation Park and Wildlife Safari**. This park, open April through October, is like an interactive zoo. Drive through the four-mile wildlife adventure and come face-to-face with animals including elk, bison, white-tailed deer, antelope and waterfowl.

Ashland is also home to the **Strategic Air Command and Aerospace Museum**. Visitors can walk through 300,000 square feet of aircrafts, space crafts and exhibits like The Heartland Astronaut, and don't forget to take a ride on the flight simulators to experience the feeling of flying.

Golfers can stay and play at Ashland's two public 18-hole courses **Quarry Oaks Golf Club** and **Iron Horse Golf Club**. Iron Horse is built around an old rock quarry and the championship course, Quarry Oaks, is nestled in the Platte River Valley.

Cellar 426 and **Glacial Till Tasting Room** are two places in Ashland with award-winning, Nebraska-crafted wines. Cellar 426 is a vineyard and tasting room located on a hilltop overlooking a 360-degree view. Glacial Till Tasting Room carries Nebraska wines that come from the vineyard in Palmyra, located 27 miles south of Ashland.

Dine at a local favorite, **Cheri O's**, that offers breakfast, lunch and old-fashioned ice cream. **Round the Bend Steakhouse & Saloon** is a family-owned steakhouse, and **Parker's Smokehouse** serves great BBQ.

It isn't a question as to why this part of Nebraska is one of the 10 most beautiful. Ashland has much to offer, so spend time exploring it. For more information go to ashland-ne.com/. ■

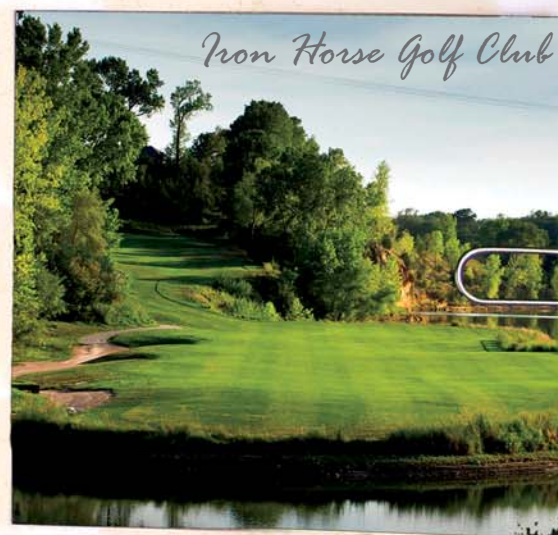


SAC and Aerospace Museum

Ashland



Kids get a look at bison at the Wildlife Safari Park



Iron Horse Golf Club

Background photo: Memphis Lake State Recreation Area near Ashland offers a reflective palette of reds.

National Register of Historic Places



Located adjacent to Nebraska Highway 6, Linoma Beach opened July 4, 1924 as a "pleasure resort" in the former sand and gravel pits of the Lyman-Richey Sand Company.

In 1939, the 100 ft. octagonal shaped lighthouse was built with the intentions of being utilized as both a filling station and a landmark for travelers, as well as an entrance to the beach.

The lighthouse is constructed of wood frame with metal cable supports. It is painted white with LINOMA spelled out in black letters and topped with a metal-covered dome. A central wooden spiral staircase extends from the basement to the ten stories of the structure.

The Linoma Lighthouse Foundation is a 501(c)(3) non-profit seeking to restore, preserve and protect the historic lighthouse to its original glory. Tax-deductible donations may be made in person or by mail and online:



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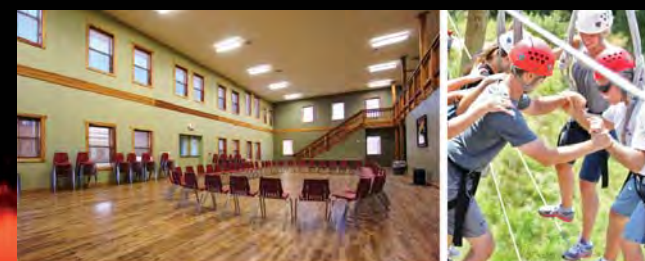
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Spectacular view from
Cellar 426 in Ashland

A Brief History

Game Day 1922

By David L. Bristow, Nebraska State Historical Society

Memorial Stadium hasn't always been the home of Cornhusker football; it just seems that way. Between 1909 and 1922, the team played at Nebraska Field, more or less at the same location as the present-day stadium. The field ran east-west instead of north-south.

Nebraska Field was packed with 16,000 fans for the stadium's final game, a 14-6 Nebraska victory over Notre Dame on November 30, 1922. Nebraska had a big rivalry with Coach Knute Rockne's Fighting Irish, and games between the two teams were always well-attended.

Today, good seats at Memorial Stadium cost a lot of money. At Nebraska Field, cheapskate fans could watch the game with a little creativity and determination. In the photo at right, spectators perch on rooftops, ladders, makeshift scaffolding, a tree just outside the stadium and even a telephone pole. By comparison, the top of the stadium awning was a veritable luxury box.

How did people get up on the awning, anyway? A photo from a different angle provides a clue. Notice the boards nailed to the back corner post – they appear to be a crude ladder. It's something for today's fans to ponder while making the long climb to the East Stadium's lofty upper deck. ■

Visit the Nebraska State Historical Society's website at nebraskahistory.org.



NSHS RG2758-105-10

On ladders, trees, poles, roofs, an awning (and even in the bleachers!), Nebraska fans watch their team defeat Notre Dame, November 30, 1922.



NSHS RG2758-102-740

Another view, same day, of Nebraska Field's awning-covered bleachers.



Only agile fans got skybox seating.

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How We Hunt

By Caitlyn Gillespie

On a clear, chilly morning this past October, the distant cackle of pheasants greeted hunters arriving at Conservation Reserve Program (CRP) fields, signaling the return of upland bird season in Nebraska. They may also have seen Lyndsie Wszola, a master's student in the Nebraska Cooperative Fish and Wildlife Research Unit at the University of Nebraska, who is studying how pheasant hunters and pheasants interact in the fields they share.

"One of the premises of this research is that people are predators," Wszola explained. And just like any other predator, hunters don't necessarily walk in perfectly straight lines through vegetation. While some fields may be open and easy to walk through, others have denser, taller grass and forbs, which can make traversing them more difficult. What that means is that even though every hunter moves through a field slightly differently, hunters tend to walk through parts of some fields more than others.

To figure out how hunters use a field, Wszola first measures the vegetation on several public-access CRP fields in her southwestern Nebraska study site, where Coop Unit researchers have been radio-tagging and tracking pheasants since 2012. She then recruits volunteer pheasant hunters to wear a GPS-enabled wristwatch during their hunt, which tracks the route hunters take through a field. Ultimately, she'll have data that shows how both hunters and pheasants

are using the same places.

Why does it matter? Wszola is curious to learn whether pheasants respond differently depending on how many hunters are using fields and where people are walking. And a bird's response to hunters may even be different depending on the vegetation within the field.

"To us, it may not seem very different if five hunters walk through one hectare of this field versus another," she said. "Things may look very different from a pheasant's perspective, though." For example, in places where the vegetation is denser, there's more cover for pheasants to hide as hunters walk by. That may make pheasants less likely to move to a new place, a behavior that pheasants use to try to avoid predators, including people.

Last fall, Wszola collected data from more than 70 pheasant hunts and this fall she hopes to collect even more. She'll use the information she collects to help figure out where hunters typically walk, and whether hunter movements influence how the birds are using the same fields.

From a management perspective, she hopes that her research will provide insights that will help both hunters and pheasants alike. "We really need to consider the behavioral ecology implications of how we manage these fields and what really draws people," she said.

Visit trackyourhunt.unl.edu to watch Wszola working with hunters in the 'Track Your Hunt' video, and to learn how to volunteer to carry a GPS unit during your hunt.



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Reading Whitetail Signs

By Julie Geiser

For better strategies to hunt white-tailed deer, learn what major types of deer signs look like and what they mean. But first, print maps of hunting areas to mark signs as you find them and make notes on deer sightings, observations about their movements, and game trails before or during the season. If you have a good GPS unit, save these coordinates and the device will lead you back to the same spots.

The major types of signs to watch for are droppings, tracks, trails, feeding and bedding areas, rubs and scrapes. The amount of droppings you see indicates how many deer are nearby, and the freshness indicates whether deer are currently using that area. Droppings can also tell you something about the particular deer that left them. Extremely large clumps are a sign that a large deer is in the area. And because mature deer often defecate as soon as they leave their beds, droppings near thick cover might give you an idea where that large deer is living and which direction it travels.

A set of deer tracks may also provide important information. If a track is dry and eroded, it is an old track. If it's fresh and well-defined, the track may be only hours old. If you find large hoofprints, a mature buck probably made it. Does often travel in groups, so if you find a single set of tracks, it's likely the tracks are from a buck. When walking, a large buck has a longer distance between tracks than an average deer, and bucks are prone to dragging their hooves.

The best game trails often lead to thick bedding cover or dense escape areas. Finding where several trails merge into a heavier, single path increases odds of seeing deer. Using a trail camera or doing early-morning and late-evening scouting will help you determine if deer are using trails during the day or strictly at night. Rookie hunters sometimes waste too much time hunting nighttime travel corridors. These are usually open areas and easily accessible.

Watch for feeding areas with fresh deer signs, and look for



Deer tracks can give hunters many clues.



Sometimes a deer scrape (foreground) and tree rub can be found together.

PHOTO BY JEFF KURRUS

trails leading to feeding areas. Seasonal food sources will change trail use. Bedding areas have mashed vegetation from resting deer. Don't spend too much time here, or you might scare deer out of the area; find a trail where deer can be intercepted moving to or from bedding areas.

Rubs are important signs when hunting bucks. A series of rubs shows the path a buck follows, at least on some days. Setting up on fresh rub lines can increase the amount of deer a hunter will see.

Rubs may also provide useful clues. Mature bucks are usually much more aggressive than smaller bucks. Trees that have been ripped to shreds are most likely from a mature buck – the larger the tree, the larger the buck. Rubs can indicate the direction a buck travels; bucks will usually rub the side of the tree from which they approach. After finding multiple rubs in a row, it is possible to determine the exact path traveled by the deer.

Scrapes are cleared oval areas on the ground where a buck pawed out vegetation and urinated over its tarsal glands to attract does in heat. The best scrapes are fresh and damp with little debris on them. Most will have a tree branch overhead that a buck has bent or broken and left scent on. Placing a stand or blind downwind of these scrapes can be worthwhile whether hunting for bucks or does, as does will visit the scrapes and check for scents left behind.

Typically a mature buck will make several scrapes along a corridor. He will actively check all the scrapes by running along a single trail. Examine the area closely to determine how the buck enters and leaves the area of each scrape to decide the best place for a stand.

Although it is extra work, scouting can make a difference. Learning how to read deer signs will show you the way to more successful hunting. ■

Bug Banter

Be On Alert for Asian Longhorned Beetle Infestation

By Julie Van Meter
State Entomologist, Nebraska
Department of Agriculture

The Asian longhorned beetle (ALB) (*Anoplophora glabripennis*) is an emerging threat to hardwood trees in the U.S. A federal quarantine prohibits the movement of hardwood firewood out of infested areas because, much like the emerald ash borer, ALB can easily be transported in firewood.

The Asian longhorned beetle is a large, beautiful beetle. Adult beetles are approximately three-quarters of an inch to 1½ inch long.

They have a shiny black body with white spots, long black antennae with white bands, and feet that may appear bluish in color. The larvae are creamy white and grub-like, and grow rather large before pupating. Female beetles

chew out niches in the bark and lay eggs in those niches.

Signs of an ALB infestation include large round exit holes, up to three-eighths of an inch in diameter, bark niches and coarse, sawdust-like frass on the ground and branches. Trees infested with ALB may exhibit branch or crown die-back. Repeated infestations will eventually result in tree death. Nebraska has several species of trees that could be infested by ALB, including maples, box elder, elm, birch and ash.

ALB has not been found in Nebraska. But there is concern that it could be introduced to the state, especially through infested firewood. So the next time you are out among the trees, remember that you have an opportunity to help protect our state's trees from invasive pests. Take a few minutes to look at the trees around you. Determine if the trees have a healthy canopy. Dead branches, die-back and early leaf drop may indicate pest problems. Look for large emergence holes on the upper branches and trunk that may indicate an ALB infestation, or frass accumulating in the branch

crotches or base of the tree.

If you see an adult beetle, try to capture it or take a picture. Report any suspected ALB infestations to the Nebraska Department of Agriculture at 402-471-2351.

For more information on ALB, visit beetlebusters.info. Finally, to help protect all our trees from invasive pests, buy locally harvested firewood at your camping destination, and don't bring leftover firewood home with you. ■



Adult Asian longhorned beetle and bark niches.

KENNETH R. LAW, USDA APHIS PPQ, BUGWOOD.ORG

YOU NEVER KNOW WHAT IS LURKING IN YOUR FIREWOOD

Invasive pests like the Asian Longhorn Beetle can move in firewood.

BUY LOCAL, BURN LOCAL.

www.nda.nebraska.gov





Upcoming Events

by Jerry Kane

Contact the Nebraska Game and Parks Commission at 402-471-0641 or visit Outdoornebraska.org for more information. Visit huntsafenebraska.org for a list of hunter education classes and boatsafenebraska.org for a list of boating safety classes.

November 1
Late Doe/Fawn Antelope season opens

November 1
Raccoon, Opossum, Long-tailed Weasel, Mink, Red Fox, Gray Fox and Badger hunting and trapping seasons open

November 1
Muskrat and Beaver Trapping season opens

November 2, 3, 9, 10, 16, 17, 30
Explore Archery
Nebraska Game and Parks Outdoor Education Center, Lincoln

November 5
Candlelight Tour
Fort Atkinson State Historical Park, Fort Calhoun

November 5
Archery Fun Shoot
Nebraska Game and Parks Outdoor Education Center, Lincoln

November 5-6
River Valley Artisans and Craft Market
Eugene T. Mahoney State Park (SP), Ashland

November 5-6
Firearm Hunter Sight-In
Nebraska Game and Parks Outdoor Education Center, Lincoln

November 6
Veterans Appreciation Day
Platte River SP, Louisville

November 7
Woodcock Hunting season closes

November 7
Tickets go on sale for Historical Christmas Dinner
Fort Robinson SP, Crawford

November 9
Rail Hunting season closes

Candlelight tour at Fort Atkinson State Historical Park in Washington County.

November 12-20
Deer Hunting
firearm deer and restricted statewide buck seasons

November 15
Crow Hunting
First segment of crow hunting season closes

November 18
Rifle Fun Shoot
Nebraska Game and Parks Outdoor Education Center, Lincoln

November 19
Holiday Craft Workshop
Nebraska Game and Parks Outdoor Education Center, Lincoln

November 19
Introduction to Handguns
Nebraska Game and Parks Outdoor Education Center, Lincoln

November 20
Fort Robinson Longhorn and Buffalo Sale
Crawford

November 29
Bighorn Sheep Hunting season opens

November 29
Learn to Hunt Muzzleloader Deer
Nebraska Game and Parks Outdoor Education Center, Lincoln

Fall fishing with spoons, slabs, and lures for northern pike at Merritt Reservoir in Cherry County.

Hawk Migration

Paula Hoppe, Certified Master Naturalist

The cool, gray skies of autumn carry the familiar sight of ducks and geese, arrayed across the firmament in vast, undulant squadrons. The calls of veteran birds leading the young of the year on their first trip toward southern horizons reminds us of the approaching winter. However, there is another migration underway that isn't as familiar. Raptors – including eagles, hawks, falcons, and vultures, among others – also move southward through the state as the days shorten.

Turkey vultures may begin heading south as early as August, with peak migration occurring in October.

Swainson's hawks, with their brown bibs and white throat patches, can often be seen soaring in circles, or "kettling" over fields from mid-September through October. Keen hunters, they scour the ground in search of small mammals and insects as they refuel on their way to Argentina. It is not uncommon to see them sitting on the ground.

Broad-winged hawks are small, compact raptors. Look for a short, narrow tail and stocky, pointed wings. Like Swainson's hawks, they gather into large groups called kettles, and travel long distances (up to 5,000 miles!) on their trek from breeding to wintering grounds.

Bald and golden eagles are on the move from October through December, though some may remain on their breeding grounds for the winter if they can find adequate food.

Peregrine falcons migrate during September and October. To spot them, look for long, pointed wings, streaking on the belly and a checkerboard-like pattern under the wings.

One reason hawk migration is less conspicuous than that of ducks and geese is that raptors don't generally form large flocks, though Swainson's and broad-winged hawks offer notable exceptions. While migrating, raptors tend to follow topographic contours that cause the formation of updrafts and thermal currents on which the raptors can soar with very little energy expenditure. It is along these corridors that the greatest opportunities to observe raptor migration exist. ■



PHOTO BY JUSTIN HAAG

A golden eagle perches on a tree high above Larabee Creek near Whiteclay.

NEBRASKA Visitor

Last issue's winner of the Visitor drawing was Mike Carlson of Wausa, Nebraska, who found the **snowberry clearwing moth** on page 74.

Readers are encouraged to contact *NEBRASKAland* within 10 days after this issue's publication with the correct page number and name of this issue's "Visitor" – a critter found in Nebraska. We will then gather the correct entries and draw one to win a *NEBRASKAland* mug. To enter each month, write:

NEBRASKAland Visitor
2200 North 33rd Street,
Lincoln, NE 68503.

Or e-mail:

Tim.Reigert@Nebraska.gov
with "Visitor" in the subject line of the message.

HINT: This issue's visitor is not on pages 8, 17, 19, or 21.

The snowberry clearwing moth (Hemaris diffinis) is native to Nebraska and much of the U.S. east of the continental divide. It is a medium-sized moth, with a wingspan of 1.5-2 inches, and is related to the whitelined sphinx and tomato hornworm moth. It is often confused for a bumblebee or hummingbird due to its black and yellow coloration and ability to hover over flowers while feeding.

Adult moths feed on a variety of flowers, unfurling their long proboscis to get to the nectar deep in a flower. The caterpillars are more host specific, feeding on dogbane, snowberry and honeysuckle. Caterpillars are typically pale green with a "horn" at the end of their bodies, similar to other hornworm caterpillars. However, snowberry clearwing caterpillars do little damage and are not considered pests.

Special thanks to Julie Van Meter, State Entomologist, Nebraska Department of Agriculture.



Duck Dogs

Photos and story by Doug Steinke

The strong bond between retriever and hunter is something every waterfowler should experience.



Chase watches over his master Spencer Holzfaster making the final touches on the day's decoy spread on the North Platte River in Keith County.



Above: Bella is admiring the birds taken during the late specklebelly season in Dawson County.

Left: Wriggs supervises owner Spencer Holzfaster on a warm water slough in Lincoln County.

Below: Gauge (Craig Reiningner) and Deke (Travis Reiningner) team up to bring back a Canada goose in a field off of the South Platte River.





Above: Kevin Jenny and his dog, Sully, enjoy a relaxing moment on an afternoon Platte River hunt near Kearney.

Left: Cory Steinke's dog, Oakley, retrieves the only mallard of the day during a chilly morning on the Platte River in Dawson County.

Below: Aspen enjoys the early season gray ducks in the Rainwater Basin near Sutton.

Life Cycle

First comes the warm little fuzz ball, trying to learn not to trip over her paws. You, the hunter, have prepared for this journey by viewing every YouTube training video and purchased the best puppy starter kit from the local sporting goods store. Then comes the magical moment when you throw out a rolled up sock and your puppy brings it back. You know you are well on your way.

Synergy is the creation of a whole that is greater than the sum of its parts – that's the span of years during the relationship between hunter and retriever. The two of you become a near perfect team. Like a fine knife, the only way to hone a better edge is repeated use, and time accumulated in the field sharpens this teamwork. During the prime years no words or whistles can relay the meaning of the message as well as eye-to-eye contact.

Now, what makes a successful hunt takes on a new meaning not measured in bag limits. The main goal now is to get out, get one bird, and allow your best friend as many last retrieves as you can. The lifespan of a dog is agonizingly short. Though you used to press for perfection, you are happy to wait as she takes her time getting back. She has earned her keep, her place sleeping alongside you as another year of ducks migrate south.





A Hunter and His Retriever

*When you picked me up it was love at first sight.
 You called it days of training. I just thought it was called instincts.
 I know the difference between the click of the door when you head off to work and
 the click of the gun safe.
 Neither snow nor rain nor sleet nor gloom of foggy mornings will ever be an
 excuse not to take me hunting.
 I appreciate how you feed me the most scientifically correct dog food, but I'll take
 scrambled eggs, pancakes and bacon in a blind over that every day.
 We work as a team. For me to do my part means your shots can't miss.
 When the day is done all I'm thinking about is doing it all over again tomorrow.*

Opposite: Ignoring the zero-degree temperature in Lincoln County, Wriggs is always ready to go.

Above: Ted Peterson holds a quick team meeting with his Lab Cooper after the first bagged bird of the morning on the Platte River near Lexington.

Doug Steinke has been a nature photographer for 8 years and works out of Grand Island. His photography emphasis has been on landscapes, waterfowl and fishing. He has been contributing to NEBRASKAland Magazine since 2008.



Time Well Spent

What to Do in November

By Renae Blum

Fall is in full swing, and the holidays will be here before you know it. Before things get too hectic, here are a few great activities to try this month. For a complete list of upcoming events across the state, or for more information on any of the activities listed here, visit Calendar.OutdoorNebraska.gov. ■

Pheasant, Quail and Grouse Hunting

Statewide

Good news, hunters – the outlook for upland game hunting in Nebraska this year is good. Bird numbers were up statewide in 2015, and the pheasant harvest was up 26 percent last year. High quail numbers are also expected.



PHOTO BY ERIC FOWLER

Tickets Go on Sale for 21st Annual Historical Christmas at Fort Robinson State Park

Nov. 7 at 8 a.m.

One of Fort Robinson's most popular events, the Historical Christmas event on Dec. 3 is a chance to gather with friends and family and enjoy a Christmas dinner similar to what the fort's inhabitants might have had long ago. Starting Nov. 7 at 8 a.m., tickets are available in person at Fort Robinson, the Chadron Visitors Center, and Herren Brothers True Value in Harrison. Tickets sell out rapidly, so make sure to grab your spot early!



PHOTO BY JUSTIN HAAG

Deer Hunting

Statewide

The firearm deer season is Nov. 12-20. Archery season continues through Dec. 31. Don't miss out on this treasured tradition in Nebraska; if you haven't already, buy your permit now at Outdoornebraska.org/deer.



PHOTO BY JEFF KURRUS

River Valley Artisans and Craft Market

Nov. 5-6

Eugene T. Mahoney State Park

Need holiday gift ideas? This is your spot. The River Valley Artisans and Craft Market at Eugene T. Mahoney State Park showcases the handiwork of artists and craftsmen and women from across the state. Stop by to chat with the artists, enjoy food from the Lodge Restaurant and pick out unique, handmade items, including jewelry, pottery, homemade jams and jellies, and small furniture.



PHOTO BY JENNY NGUYEN

Veterans Appreciation Day at Platte River State Park

Nov. 6

Platte River State Park

The Roger G. Sykes Outdoor Heritage Education Complex at Platte River State Park is a great place to relax and sharpen your firearm and archery skills. On Nov. 6 from 10 a.m. to 4 p.m., the first 100 visitors with a military ID will receive a token for a free shooting activity.



PHOTO BY ERIC FOWLER

Pheasants for All

An Interview with Nebraska Game and Parks Upland Habitat and Access Program Manager John Laux



Story and photos by Jeff Kurrus

Q: How important is pheasant hunting to Nebraska?

Pheasants are clearly the prized game bird in our state, and that hasn't changed even though our numbers have. Historically, pheasant hunting brought a huge boost to our state's rural economies, but this is pretty localized today. Still, the tradition of pheasant hunting is very strong in Nebraska. People still want pheasants, and the build-up around the species is great. In this regard, pheasants are also very important for habitat conservation efforts in Nebraska. Pheasants utilize different habitat types throughout the year – from weedy transitional areas to heavy grass. A wide variety of grassland birds and other wildlife species rely on grasslands in different stages of succession, so when you manage for pheasants you benefit many other species at the same time.

Q: So your management of pheasants can help nongame birds as well?

Absolutely – there's a lot of overlap. This is a big opportunity with our state's new five-year pheasant management plan, the Berggren Plan for Pheasants. While the pheasant on the plan's cover is a larger indicator of what the priority of the plan is, the habitat goals outlined in the plan benefit the entire grassland ecosystem, from grassland birds to pollinators.

Q: When and what caused the pheasant decline in Nebraska?

Pheasants were introduced in the early 1900s and quickly became established throughout much of Nebraska. Populations peaked in the late 1950s and have declined ever since. Pin-pointing the direct cause of pheasant population decline can be challenging; however, we know that weather events and habitat loss have contributed significantly to the problem. Agricultural land use changes over the years have greatly reduced the amount of suitable pheasant habitat in our

state. Pheasants thrived in the early-mid 1900s because they were placed in ideal habitat. Farming operations were small and more diversified. Crop fields were weedy, providing ideal brood cover and winter food sources. Crop rotations included small grains. Many areas were left undisturbed each year. Grasslands were more abundant and were grazed haphazardly when conditions allowed, and haying was a slow process that provided sufficient time for birds to nest.

Fast-forward to today's landscape and there are some drastic differences. Advances in ag technology have made

farming much more efficient – fields are larger and “weed-free,” row crops have largely replaced small grains, and few areas go undisturbed. In the absence of small grains, weedy crop fields and grasslands in general, pheasants in many areas of the state are now heavily reliant on CRP to fulfill their habitat needs, and when the CRP goes away, so do the birds. Most remaining habitat is also very isolated and this raises additional concerns. Research has shown that the negative impacts of severe weather and predation are even more profound on pheasant populations occurring

in fragmented landscapes. Someone before me said it best: “Pheasants are no longer the reliable by-product of agriculture as they once were.”

Q: So what are the steps to help build pheasant populations and the challenges that go along with those steps?

With our state being 97 percent privately owned, the key will be continuing to work with private landowners to



Pheasants remain critical to the fabric of the Nebraska outdoors, as seen in various parts of the state, including the southwest.



The pheasant population is continuing its upswing from the 2012 drought, with numbers expected to be similar to last season.



Mark Bazis carries an over-and-under shotgun while pheasant hunting in a Sarpy County CRP field.

create and improve habitat. But to truly build the population, this has to occur on the landscape scale. With the Berggren Plan, we'll be ramping up our efforts to impact more acres – at least in targeted areas of the state. But realistically we can't do all this alone. We'll need to continue working cooperatively with new and existing partners to deliver habitat, influence Farm Bill policy and secure additional conservation funding.

The biggest challenge I see is that we are working in an agricultural landscape that is always changing. There will always be pressure to make farming more and more efficient, and historically, this has not been good for pheasants. At the same time, changes can also lead to opportunities. We'll need to think of innovative ways to create more habitat in

targeted areas and incorporate wildlife benefits into these changing agricultural systems. For example, cover crops are trending right now and represent an opportunity to create pheasant habitat along with all the other agronomic benefits.

Q: What do you think is the state of Nebraska's pheasant population as well as hunting opportunities?

I think we're continuing on our upswing from the 2012 drought. We saw a pretty big increase in hunter harvest last year and hope to see the same again this year. We had a pretty mild winter throughout most of the state, so we carried a pretty good breeding population into the

nesting season as indicated by our rural mail carrier surveys. There are always some isolated areas that get hit with severe weather during the nesting season but nothing was real widespread this year. We've had a good amount of precipitation throughout the summer and fall in most areas of the state, a tremendous wheat crop in western Nebraska, and the habitat in our core pheasant areas is looking good. Farmers I've been in contact with have seen relatively good numbers of birds compared to years past.

The one thing that echoes throughout the state are the excellent quail numbers this year. We had a remarkable year last year, and assuming even average production, this year should be just as good if not better. People are seeing quail in areas they haven't seen quail in years.

Q: Will birds find habitat if you create it?

In most areas of Nebraska that's still true, but there are a few caveats. Pheasants almost always respond positively when you plant CRP. At a very localized scale, adding CRP will result in more birds – at least up to a certain point. But the thing we are starting to find is that the bird response to a 50-acre CRP planting in one area of the state differs greatly from that observed following the exact same planting in another part of the state. So in an applied sense, this means that not all CRP acres are created equal, and that the surrounding landscape often dictates the degree to which pheasants will respond to a management action, or in this case, planting CRP. The Nebraska Cooperative Fish



Above: Northern bobwhite quail are a great option for upland bird hunters this year, as numbers continue to increase. Right: Chris Vrtiska's dog, Yasha (left), a Saint Usage Spaniel, and Mark Vrtiska's dog, a Vizsla named Tessie, pose after a private land hunt in Platte County.

and Wildlife Research Unit recently developed a pheasant habitat suitability model that shows areas of the state where you can expect greater pheasant responses to habitat establishment or management actions. The model also allows biologists to simulate changes in landcover, such as adding or removing CRP, and predicts the associated bird response. These support tools have helped us determine where we will have the greatest return on investment and prioritize areas based on their resilience to future land use changes.

Q. Would a person manage their land different for quail than pheasants?

In general, pheasants and bobwhite quail share many of the same basic habitat needs. But there are some differences between the two species that land managers should consider when managing specifically for quail. For example, bobwhite home ranges are typically much smaller than that of pheasants, and quail also don't fly as far when they are flushed. Thus, for quail, all of the essential habitat elements must be present in very close proximity to one another. This is also true for pheasants but at a much larger scale. So what this means is that you don't have to own a quarter or half-section to effectively manage for bobwhites.

Another difference I see with quail lies in their preference of "early-successional" habitat. This habitat type is stimulated by disturbance and consists of bare ground intermixed with annual grasses and broadleaf plants. Both species use early-successional habitat during brood-rearing, but bobwhites seem to be closely tied to it throughout much of the year. Unlike pheasants, quail tend to avoid grasslands dominated by thick stands of grass. This is why bobwhites are typically found on the edge of CRP fields rather than in the middle of a field. Grasslands that receive some form of periodic disturbance, such as prescribed fire, disking or grazing, are much more functional to bobwhites. So for bobwhites, a greater proportion of the overall area should consist of early-successional habitat, and management activities should be implemented periodically to create





Bill Heard shoots at a bobwhite quail during a covey rise on an upland bird hunt on private land in Cass County near Weeping Water.

varying stages of plant succession. For example, one could strip-disk one-third of a field each year for three successive years and then start back over in year four.

Shrub thickets and other forms of functional woody cover created by edge-feathering represent another important habitat element for bobwhites that is especially important during the winter months. During this time, bobwhites do not stray far from woody cover, yet they continue to have very high energetic demands that force them to feed. Quail management often focuses on creating functional woody cover in close proximity to reliable food sources to help them survive extreme winter weather events.

Q: What can a hunter do to help increase upland bird numbers?

For one, you as a hunter should know that by buying a small game permit and habitat stamp you are already contributing towards habitat conservation in Nebraska. These funds are used to restore and improve habitat and also help support our public access programs. Another way to contribute is to volunteer with a local habitat organization such as Pheasants Forever, Ducks Unlimited, or the National Wild Turkey Federation, among others. Many of these organizations raise money to fund habitat projects and support youth mentor hunts, and provide an opportunity for you to give back to the resource.

Another thing that hunters can do is to hunt responsibly. In my opinion, this goes well beyond any financial contribution hunters could ever make. If a landowner has a bad experience with a hunter on their property who didn't obey the rules, he likely won't think very highly of hunters.

Acting irresponsibly in the field devalues not only hunters, but also the wildlife. I'm aware of some instances where landowners consider having certain wildlife species or a given hunting opportunity on their land as a burden because they don't want to attract that type of hunter ever again. Do your part – respect the land, follow the rules, and take time to thank a landowner for providing habitat and/or a place to hunt. We need landowners to value wildlife and the hunting opportunities their land provides – don't give them a reason not to.

Q: Even though we can't predict the weather, where do we see Nebraska's pheasant hunting going in the next five years? Ten years?

This will be dependent upon the availability of pheasant habitat in Nebraska, which at the landscape scale is driven largely by commodity prices and federal Farm Bill policies. Right now we have low commodity prices, and landowner interest in CRP is very high. With promotion, interest in CRP could be even higher, but the current acreage limit is hampering enrollment. Big decisions will be made in the next Farm Bill (2018), and these will have huge implications on the availability of pheasant habitat as well as the future of pheasant hunting in Nebraska. If the amount of habitat increases and Mother Nature helps us out along the way, pheasant hunting should improve.

Q: From a personal standpoint, where do you hunt?

I mainly hunt close to home in south-central Nebraska. I hunt quail periodically on our family farm

in Franklin County, but I'm really no different than most hunters – most of my upland hunting occurs on public lands. I spend a lot of time hunting Open Fields and Waters (OFW) properties in Furnas County and sometimes venture farther west than that. There are many spots over there and some great mixed bag opportunities that are pretty tough to beat. Some of the best bird habitat in my area occurs on public lands, so there's really no reason to go look anywhere else – that's what it's there for.

Q: Are there places in the state you think are underutilized?

I definitely do – I think there are underutilized areas in nearly every part of the state. I think most pheasant hunters would agree that they spend 99 percent of their time hunting CRP fields. Hunting CRP can be very productive, but many hunters overlook the fact that pheasants utilize other habitat types throughout the season, and even throughout their daily routine. Other types of habitat, some seasonal in nature, can provide excellent hunting opportunities. Some of my favorite spots in south-central Nebraska are winter calving pastures. Certain years, the weedy cover is phenomenal and other years not so much but they are always spots I check out each year. In the Panhandle, it might be a 0.5-acre tree or shrub planting in the middle of nowhere. When the weather gets nasty, these areas draw in birds from near and far that were produced in surrounding wheat fields. Although hunting opportunities are typically short-lived, unharvested crop fields, especially sorghum or cane, can also provide some great hunting in certain parts of the state.

As far as public land, tall wheat and milo stubble fields

enrolled in our OFW program in western Nebraska provide excellent hunting opportunities, but for some reason they just don't get used as much as CRP fields. Due to the timing of wheat and milo harvest, these fields are added to the online version of the atlas (OutdoorNebraska.org/publicaccessatlas) and printed right before season in our "Stubble Access Guide." I think this keeps some of these tracts under the radar, but there are many pheasant hunters who just won't stray from hunting CRP fields. This year, we have over 19,000 acres of tall stubble fields open to public, walk-in hunting. Hunting stubble is definitely a different hunt, prime for wide-ranging pointers that like to cover ground or large hunting parties with blockers. But many of these enrollments also contain unfarmed pockets which are great for flushing dogs too.

For those that enjoy hunting CRP, another thing to consider is adjusting your hunting strategy. Pheasants aren't dumb and quickly pick up on hunter tactics, especially on public land. The Nebraska Cooperative Fish and Wildlife Research Unit is looking at this right now, examining how hunter use influences pheasant behavior. Not surprisingly, hunters heavily use portions of CRP fields close to parking lots, OFW signs and field edges. If you think about it, the effective coverage area of most hunters and their dogs represents only a fraction of the entire field.

I know it's easy to get discouraged and move on when you see another party has hunted a spot, but this research has shown that in many cases the birds are still there, occupying portions of the field that hunters by human nature tend to avoid. So the key here is to mix things up, try to hunt differently than others, and don't overlook other habitat types used by pheasants. ■



Platte Basin Autumn

Photos and story by Jare Godfrey

This past autumn, as my time in nursing school came to a close, I was blessed to have a month free from responsibilities. I planned to use this time revisiting my hometown of North Platte and to build a small portfolio of landscape images, strictly along the Platte rivers bordering this small city. I am no greenhorn when it comes to exploring these rivers; much of my childhood was spent wandering along their banks with my best friend, Chelsey, the Chow.

The 26 years that I had lived in North Platte usually consisted of my daily pilgrimage to one of the rivers for a walkabout, beginning with yoga on a large rock overlooking the South Platte, hot summer days spent tubing down the North Platte, or swimming at the spot I affectionately dubbed “the bathtub.” Many of my fondest memories involve these rivers, and the beauty to be found here is quite inspiring. Yes, I knew these rivers well, but I have been away for some time.

Much has changed since I called this city home, although the rivers remain strong and beautiful as ever, continuing as two of the many arteries delivering water from the Rocky Mountains to these United States, through the Missouri and Mississippi rivers, leading finally into the ocean.

To the untrained eye, this stretch of the Platte may seem to be nothing more than a chaotic juxtaposition of sand, wood, rock and water. We

A burned root system comes to rest along the shores of the Platte River near North Platte.

must learn to “switch gears” from the busy, chaotic life that surrounds us, and forget much of what our society has taught us. With television and other media, we are constantly bombarded with information, pictures and music. With such a large volume of information vying for our attention, we cannot possibly take it all in. So to adapt, we ignore anything that is not deemed worthy in those first few seconds.

The problem with this, however, is that many of the most visually rewarding scenes require patience, pre-visualization, and time spent unlocking the beauty.

The goal of this project was to honor this area of Nebraska, which holds a great deal of importance to me, by showcasing its natural beauty and to

stimulate a sense of adventure in others by showing images that were made not in a national park with mountains on the horizon, but in a very “common” and accessible area. Novelist Marcel Proust once said, “The real voyage of discovery consists not in seeking new landscapes but in having new eyes.” This quote explains perfectly the feelings I have for this project. Although I had spent 26 years exploring these rivers, I had never witnessed

LEFT: A sandbar constantly changes as the current flows around and through the sand, truly an amazing spectacle to witness.

OPPOSITE: The last light of the day kisses the tops of the trees while the moon rises through the soft, pink sky.



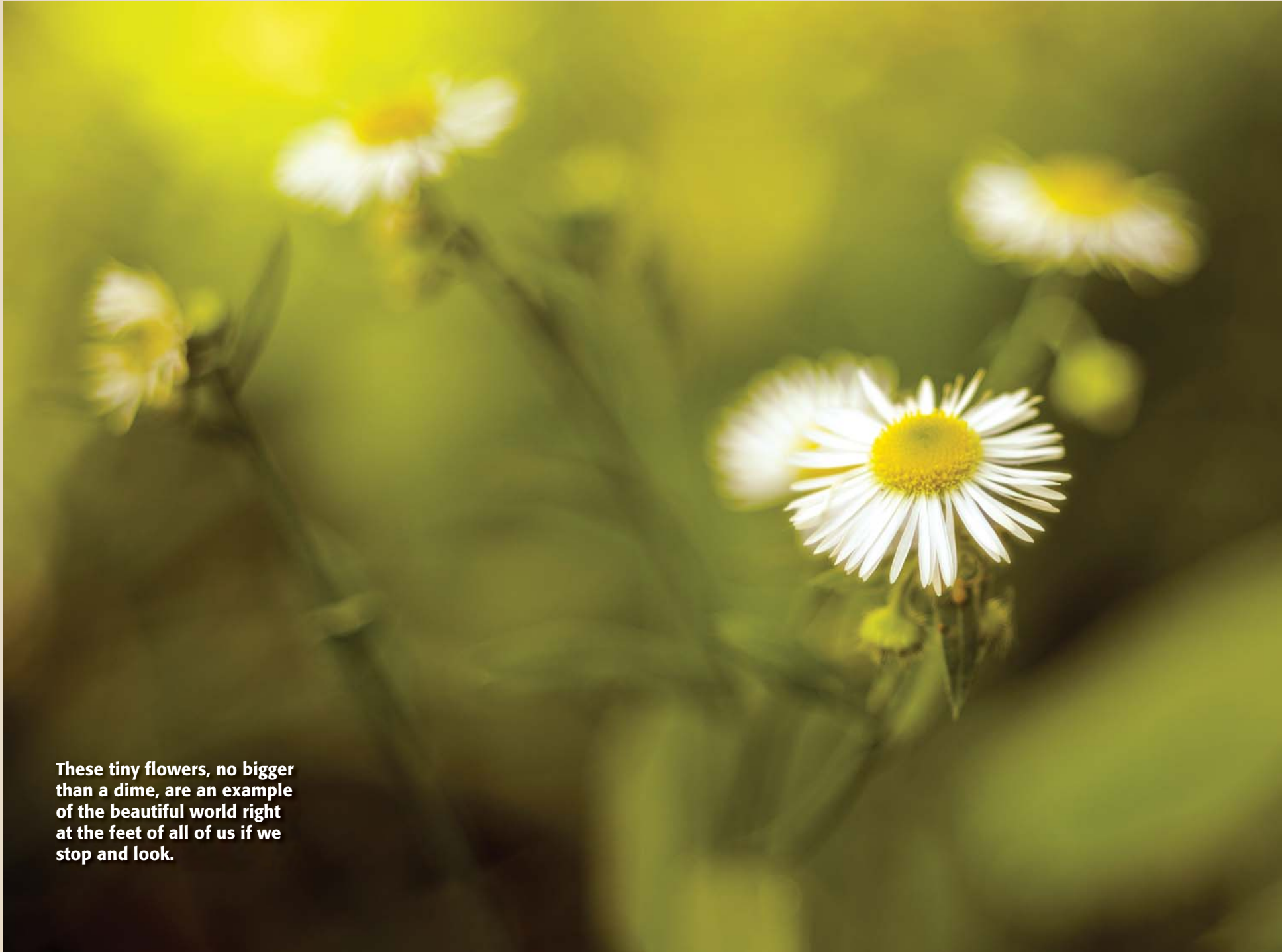
them appearing so beautiful and alive.

I remember being under the stresses of nursing school months before, looking forward longingly to the moments I was planning to share with nature. I could hike alone, make photographs as I pleased, and relax by a small fire. It seemed so far away at the time, but as I finally sat barefoot and alone along the bank, tending that small fire, I couldn't help but smile, knowing that when I had imagined these moments they seemed absolutely perfect.

And they were. ■



The author sits by a campfire on the Platte River near North Platte.



These tiny flowers, no bigger than a dime, are an example of the beautiful world right at the feet of all of us if we stop and look.



A leaf lies dead as autumn fast approaches, leaving nothing but its intricate skeleton.

Think of the Chickens

The effects of wind turbine farms on greater prairie-chickens

Story and photos by Jenny Nguyen

We're in the Sandhills, just 3 miles south of Ainsworth, where wind turbines stand like outlanders in pristine cowboy country. Their blinking red lights flash through the night, seeming like UFOs hovering across the desert-like landscape, while the silver moon reveals the turbines' towering silhouettes against the inky night sky. All is silent, except the slow, steady cadence of revolving blades. And with a single stroke, a band of color and light appears over the long horizon. From a distance, a strange cackling noise and a rush of feather approaches.

The birds arrive like clockwork, one by one, crashing onto the grass

from all directions. They are male greater prairie-chickens (*Tympanuchus cupido*), stout and nearly comical, scurrying at the break of dawn to take their positions. As if in a trance, the chickens all begin to stomp their feet, lower their heads and puff up their plumage to show dominance. And with each bow, tails snap up boldly toward the heavens and black feather "ears" rise like antennas, revealing large, orange air sacs on their necks that inflate and deflate with each "boom." An unusual long, low hum escapes from each male hoping to attract a hen: whooo-doo-doooh ... whooo-doo-doooh ... whooo-doo-doooh ...

Periodically, two males may fight – a

brief scrimmage of taunting clucks, ruffled wings and claws. The most dominant male wins center stage, catching the attention of the hens walking along the lek's perimeter. Most of the other males are ignored as the females attempt to reach the most impressive suitor.

An annual mating ritual that lasts from late March through May, the prairie chickens' dance has awed inhabitants and visitors to the Great Plains for hundreds of years. Their presence in the Sandhills is both fixture and magic, but recently, something in the Nebraska landscape is changing.

What was once an uninterrupted view of land and sky is now becoming

increasingly dotted by wind turbines. Currently, there are 18 completed wind farms scattered throughout Nebraska, with plans by energy companies to build more. Welcomed or not, many Nebraskans have taken notice of these gangly newcomers. But do the chickens really care?

The Greater Prairie-Chicken

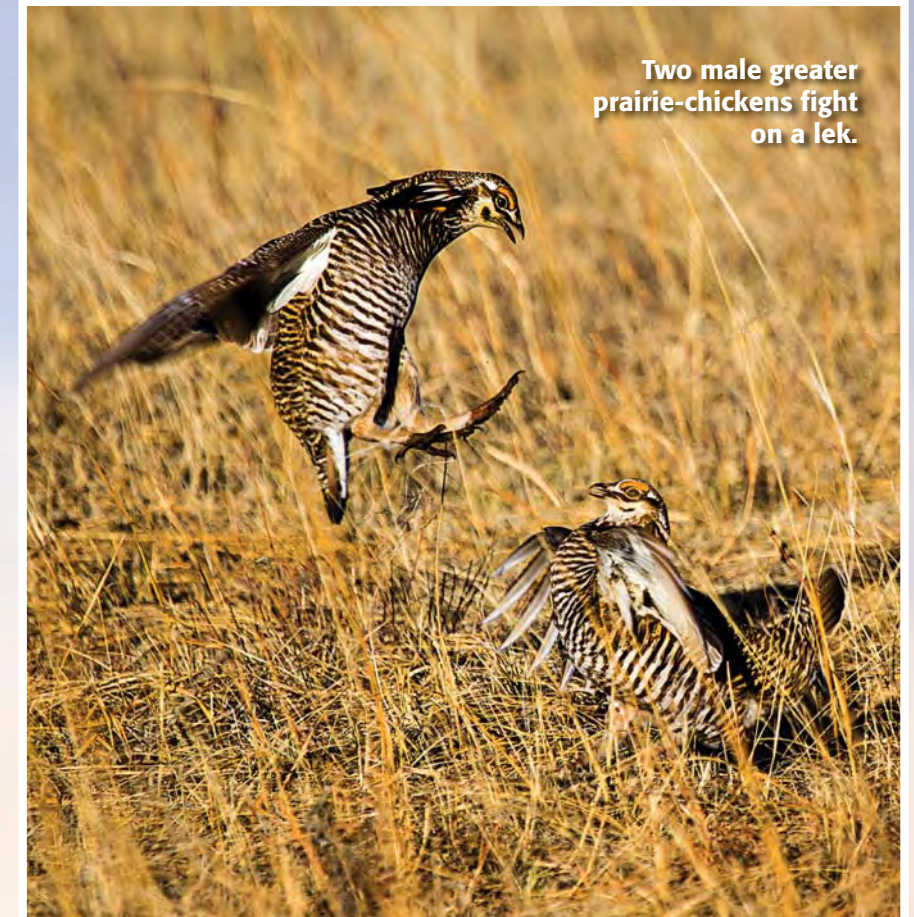
Greater prairie-chickens are a Tier 1 species of conservation concern in Nebraska, although they are a game bird. Populations in Nebraska and Kansas are stable, but the species has declined almost everywhere else in its range (see map on page 48). The Tier 1 designation reflects this decline elsewhere and is intended to provide protection to one of the last strongholds of the species in the country.

"Prairie chickens are on people's radars, as I like to describe it," said Dr. Larkin Powell, conservation biologist and conservation ecologist at the University of Nebraska-Lincoln. "Nebraska and Kansas harbor most of the prairie chickens

in North America. So we need to take care of them and that's a reason why most people are interested."

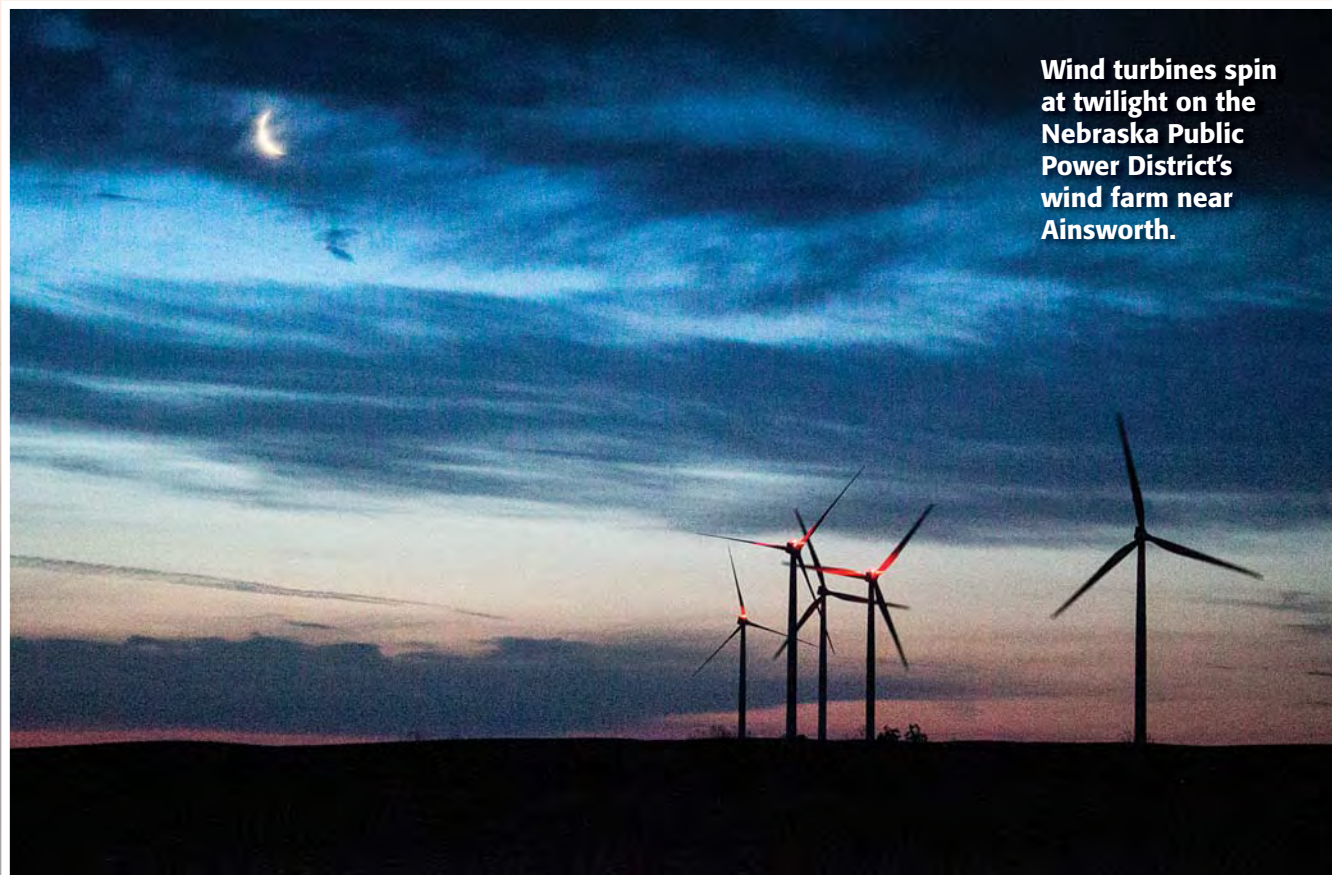
Similar to many other species of concern, habitat loss was the driving force that extirpated the greater prairie-chicken from most of its historic range. Prairie chickens need contiguous pieces of grassland, and everywhere that they have disappeared from has become cropland. Today, the greater prairie-chicken has found sanctuary in the open ranges of cattle country – in the Sandhills, a sandy region which is difficult to farm, and the rocky Flint Hills in eastern Kansas.

"Essentially, the range where they are now, they have been protected by cattle ranching. So it's a good lesson in seeing the interactions between the stewards – owners – and the land. The ranchers are helping, though probably unknowingly, to preserve the species because of their ranching activities



Two male greater prairie-chickens fight on a lek.

PHOTO BY JENNY NGUYEN



Wind turbines spin at twilight on the Nebraska Public Power District's wind farm near Ainsworth.

PHOTO BY JENNY NGUYEN



DR. LARKIN POWELL

that keep the land as nice grasslands," Powell said.

And similar to many grassland species, greater prairie-chickens do not like trees near their breeding grounds, as trees can hide lurking predators that may swoop down at these ground-nesting birds. With more and more wind farms being built in the Sandhills, the big question is – do the chickens equate wind turbines to trees? Will wind farms affect breeding habits and ultimately harm the survival of this species of conservation concern?

Wind Energy

There's a lot of wind in Nebraska. The Great Plains region holds high potential for wind-energy production. The vast expanse of the Sandhills, dominated by a complementary ranching industry, is where energy companies have been looking to build. Hence, as a pilot project, the Nebraska Public Power District built a 36-turbine wind farm near Ainsworth in 2005. Since then, more wind farms have been built all across Nebraska, neo.ne.gov/

statshtml/89.htm.

Compared to other fuel sources, wind energy is considered clean, sustainable and cost-effective. Powell doesn't see the construction of new wind farms slowing down in Nebraska.

Although the Nebraska Game and Parks Commission cannot make the final call on whether a company can or cannot build, developers often seek its review of proposed projects to avoid unforeseen environmental impacts, according to Michelle Koch, the Commission's environmental analyst supervisor.

"Wind energy companies want to ensure that their 'green' reputation stays intact. They are also required to get a state permit from some type of agency, whether it's us or another one, to make sure they're not impacting species," Koch said. "Although prairie chickens are not a listed species, these companies still try to do what we ask them to do."

However, with wind energy being still new to the region, there haven't been enough studies and data to make solid recommendations regarding

wildlife. Past reports of prairie chickens avoiding power lines, wind turbines, homes or other anthropogenic features in a landscape have been mostly anecdotal and not based on strong data, Powell said.

Furthermore, the U.S. Fish and Wildlife Service’s guidelines of buffer zones around leks, locations where the prairie chickens do their dancing and breeding in the spring, are based on information known for sage grouse around oil or natural gas facilities, which are much louder and more active than wind turbines.

Thus, in 2011, the Commission called for a study on the effects of wind turbines on greater prairie-chickens in the Sandhills. Powell, with a team of other faculty members, graduate students and technicians at UNL, began research in late 2012. They chose the NPPD wind farm south of Ainsworth as their study site, as it was the only one completed in the Sandhills at the time.

“Wind farms could provide extra income for farmers and ranchers. It’s a clean energy source,” Powell said. “So on one side, you want to be able to allow those things, if possible, but on the flip side, you also want to protect species. So our research was important

to be able to weigh those two things and provide better recommendations in the Sandhills and in Nebraska.”

Project Design

The project had three purposes: to provide information to aid in the management of prairie grouse in Nebraska in relation to wind-power development, to be able to make informed decisions regarding the siting of towers and facilities, and lastly, to determine at what distance from facility infrastructure are effects on prairie chickens negligible.

The data collected included observing bird movement relative to structures during breeding, nesting and brooding; the collection of fecal samples and feathers to test for stress hormone levels at variable distances from the facility; raptor and mammalian predator surveys to assess mortality on grouse around wind turbines; and sound analyses to look for changes in male booming behaviors around turbine noise.

The project was mostly funded by the Pittman-Robertson Federal Aid in Wildlife Restoration Act, which includes excise taxes on guns, ammunition and archery equipment.

“The prairie chicken is a game bird in Nebraska so those monies from the PR fund could be used for it,” Powell said. “Interestingly, in other states where prairie chickens aren’t a game bird, they couldn’t use those funds for a research project. We also had a student who was funded by the National Science Foundation to do telemetry work.”

In 2012, Commission District Wildlife Biologist Bill Vodehnal of Bassett began reconnaissance work to consult with landowners and NPPD in Ainsworth. Vodehnal had been monitoring greater prairie-chickens and sharp-tailed grouse in his district several years prior, and during the project, he assisted in educating the researchers on how to capture and handle birds. Site visits to locate leks were also conducted by a core team of researchers at UNL, which included Powell, Dr. Mary Bomberger Brown and Dr. Walter H. Schacht.

Dr. Jennifer Smith was hired as the post-doctoral research associate who would manage field operations with graduate students and technicians. Field data collection took place from late February through Aug. 1 of 2013 and 2014 at the NPPD wind farm near Ainsworth, which is located on private lands.

Field Work

To collect data, Smith and two graduate students from UNL – Cara Whalen and Jocelyn Olney – lived in Ainsworth for five months out of each year. Though they raised a few eyebrows initially, the ranching town of nearly 2,000 eventually warmed up to them and affectionately referred to them as “the chicken girls.”

Smith, who was born and raised in the United Kingdom and earned a doctorate at the University of Birmingham in England, made the shift to Nebraska after a short post-doctoral study at Virginia Tech. Throughout her academic career, birds have always been her predominant interest.

So when Powell advertised for a research associate, the prospect of studying wind turbines and prairie chickens in the Sandhills of Nebraska, a place where Smith had never set foot



Microphones were set up to record sounds on leks to determine changes between calls closer and farther away from wind turbines.

PHOTO BY JENNY NGUYEN

before, was right up her alley.

“Energy production is continuously expanding across the nation driving changes in land use. But, if you change a landscape, how does it affect the wildlife living there?” Smith said.

Data

From subzero temperatures to scorching 100-degree weather to watching tornado-producing cells racing across the plains, the field researchers worked in all sorts of weather from early spring through summer. The dramatic variability of Nebraska weather was one of the things that surprised Smith most.

“I fell in love with the prairies. When you get out there, it’s beautiful and the biodiversity is so great. It’s a fascinating system to work in,” Smith said.

To study bird movement, field workers captured and banded 79 female and 70 male prairie chickens. A few of the banded birds ended up being shot by hunters during the September through January hunting seasons. These bands were returned to the Commission to provide the researchers

with additional information on bird movement.

Seventy-nine females total were radio- or satellite-tagged to keep track of nesting and brooding; 69 females had traditional VHF radio-transmitters while 10 were tagged with more expensive satellite tags. Additionally, five males were radio-tagged. Once per day, field technicians had to drive out with an antenna to determine the locations of radio-tagged birds. Satellite tags, however, provided more convenience. They were programmed to send signals to a satellite 10 times per day, which the researchers were able to receive on their computers.

To record sound, a grid of microphones was set out on leks to record male prairie chickens booming during the mating season. Whalen wanted to see if male vocalizations changed in frequency or duration as they danced near the wind turbines. In the 2013 field season, Whalen also recorded behavioral observations with video cameras.

Once mating was completed, the researchers then followed the fate of nests. Radio- or satellite-tagged females were located by telemetry

to record the number of eggs at each nest, how many eggs hatched, and by the end of August, how many chicks survived. In addition to nest data, information on vegetation and nest locations relative to turbines was also recorded.

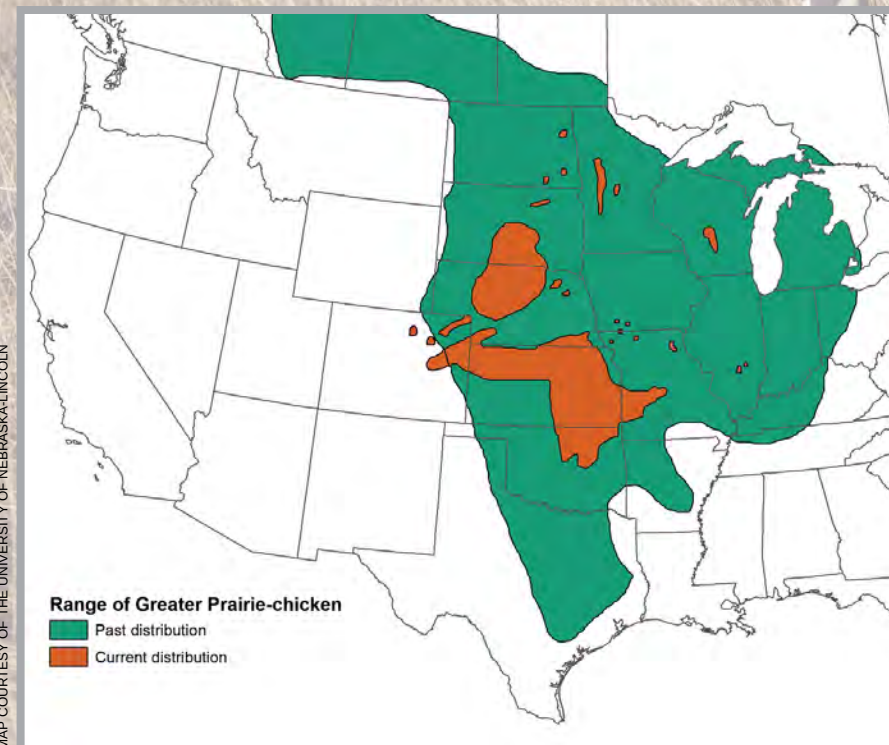
But in foggy and cold conditions, researchers were prohibited from entering the wind farms.

“Water freezes on the blades and as the weather warms up, ice can slip off and it could kill you,” Powell said. “You have to wear hard hats. When there’s ice, they don’t let anyone on the property.”

Although that may have put a stop to the study on some mornings, the researchers usually had other tasks to catch up on, such as checking trail cameras for mammalian predators and scanning the skies for raptors. Smith spearheaded those parts of the project, which explored more indirect effects on the survival of prairie chickens.

“I evaluated predation across the landscape, with the idea that the wind farm can change the distribution of predators and that could have a knock-on effect on the chickens,” Smith said.

Are avian predators avoiding wind



Range map of the greater prairie-chicken with past and current distribution areas.

MAP COURTESY OF THE UNIVERSITY OF NEBRASKA-LINCOLN



Dr. Jennifer Smith, then research associate at UNL, setting up traps near Ainsworth to band and tag prairie chickens.

Are avian predators avoiding wind turbines, therefore suggesting wind farms may actually be a safer place for prairie chickens to mate and nest?

– Dr. Jennifer Smith

turbines, therefore suggesting wind farms may actually be a safer place for prairie chickens to mate and nest? On the other hand, could mammalian predators be attracted to wind farms?

“If a crow flies into a turbine blade, it dies and drops below. So would a scavenger be more prone to look for food near the turbine because of the potential for carrion?” Powell said.

Most people naturally assume that relations between the research team and NPPD might have been contentious. But that wasn’t the case at all.

“They have a whole team of environmental experts who are interested in how their infrastructure affects the environment around them.

We approached them with a ‘We don’t know what’s going to happen’ attitude. We had some thoughts on what we would find, but we went into it with a very open mind,” Powell said.

And as far as the ranchers, “the nice thing about this project was that many of the landowners like prairie chickens. Most hunt them,” he said. “The most interested ranchers up there asked questions. ‘So where is this one today?’ ‘Where is this one nesting on my land?’ So there was a shared enthusiasm for the project.”

Smith and the field team enjoyed working with the landowners immensely.

“I just really enjoyed talking to

the landowners about what they do. It was a pleasure,” Smith said. “We understand that the land is their livelihood, but it was also really important for them to understand what we were doing as well. Renewable energy is great, but we’ve got to work out the best way forward in terms of energy production for the human population. At the same time, we have to think about how decisions affect wildlife. There has to be a balance.”

Findings

In November 2015, Larkin and his team of researchers presented their findings to the Nebraska Wind and Solar Conference. For the wind-energy industry in Nebraska, their presentation provided some relief, though not without reservations. Overall, the data showed that the NPPD wind farm had little effect on the greater prairie-chicken population near Ainsworth. The conclusions were reached by comparing results between data collected at the NPPD site and other prairie chicken leks not located near wind turbines.

With nesting and brooding, the researchers found no evidence that wind turbines had any effects on where the females built their nests or took their broods. Interestingly, researchers observed that the chickens were less likely to place their nests near roads; most hens nested at least half a mile away.

When studying the chickens’ movement within their home ranges, data again provided no suggestion of any kind of avoidance of the wind farm. The birds moved freely around the turbines.

In March and April of 2013, technicians also gathered fresh feces of male greater prairie-chickens after watching their behaviors. This information was analyzed by a graduate student mentored by Dr. LaReesa Wolfenbarger at the University of Nebraska-Omaha. In the end, they found no evidence that the wind turbines had any effects on the birds’ stress hormone levels.

Mammalian predators of various species were also observed at trail camera sites. Data has determined that the surveys provided weak evidence that coyotes, specifically, were avoiding wind turbines.

Similarly, the raptor surveys showed weak evidence that avian predators were avoiding the turbines as well.

These findings did not translate into any increased or decreased survival of hens, according to Powell. Hens that were spending more time closer to the wind turbines had the same survival probability as hens that spent more time farther away from the turbines.

“There may be potential for turbines to change predator dynamics, but we didn’t find any effects of the turbines on survival on hens using that landscape,” Powell said. However, observations of male greater prairie-chickens suggest a different hypothesis.

To study behavior, researchers separated behaviors into two categories: breeding and non-breeding. Breeding behaviors include aggression, combat, getting into position to dance, and showing off to a female. Non-breeding behaviors include standing, feeding, and feather maintenance. What the researchers found was that male greater prairie-chickens closer to the wind turbines spent less time in non-

breeding behaviors, and therefore they spent more time displaying breeding behaviors than males farther away from the wind turbines.

“One non-breeding behavior is actually standing and scanning for predators instead of being engaged in mating,” Powell explained. “So the prairie chickens have to fight and display, but they also have to stop and check out the scene every once in a while to make sure that they’re safe. One idea to explain that is maybe they don’t have to stop as much to check out for predators in the air because there are fewer predators in the air.”

Powell and his team also found some compelling data from the sound recordings of the prairie chickens booming, which were sent to acoustic experts Dr. Edward J. Walsh and Dr. JoAnn McGee at the Boys Town National Research Hospital in Omaha for analysis. In addition to gaining a solid baseline on sound at different distances from the lek, there were a few aspects in the birds’ vocalizations that were affected. Male prairie chickens that were closer to the wind turbines displayed booms that were longer in duration and with higher sound pressure levels.

“So basically, the amount of energy they were using to produce their boom – you can almost think of it as how much they were shouting to boom – was higher,” Powell said.

Furthermore, ambient background noise was also recorded before the chickens arrived in the early mornings. The acoustic experts found that the ambient background noise that was half a mile away from the wind farm was significantly higher than on other leks farther away. This evidence suggests that the chickens closer to the turbines are perceiving additional sound, which would explain why they were “shouting” more.

How will these findings affect the wind-power industry in Nebraska?

“If anything, our results will make it potentially a little easier for wind energy. But people seem to be proceeding with caution, but maybe with a little less anxiety on some fronts,” Powell said.

“That NPPD site was one of the first to be built, so it’s a smaller facility. Now, some of these are built with 105

Hunting Prairie Chickens

- Grouse season, which includes prairie chickens and sharp-tailed grouse, begins Sept. 1, 2016 and ends Jan. 31, 2017.
- Along with a hunting permit and habitat stamp, a special grouse permit is required to hunt on the east zone (east of U.S. Highway 81). West zone hunting requires no special permit.
- East zone daily bag/possession limit is 3/3 birds and West zone is 3/12.
- Check the 2016 Hunting Guide for more information. Find online hunter education at huntsafenebraska.org.

or 110 wind turbines. That’s the next question. So if this wind farm would’ve been 105 instead of 36, would there have been differences? We don’t know. Even with what we found, I think there is still a bit of caution to extrapolate that there are no effects of wind energy on prairie chickens.”

Decisions

Come spring, the wind turbines will continue to hum while the prairie chickens take up dancing again. Busloads of photographers and birders will arrive in the Sandhills to witness this remarkable ritual – an earnest display of romance that has captivated so many hearts. These birds are one of the prairie’s greatest enchantments, and through partnership between all who depend on and love this landscape, hopefully we will be able to enjoy the prairie chickens’ charms for a long time yet.

Having spent the last 15 years studying the Sandhills, Powell’s work is not possible without cooperation from landowners, as 97 percent of Nebraska is privately owned.

“It’s the decisions that people are making on their farms and ranches that drive what goes on in our wild landscapes. Hopefully, we’ve given a bit more information to folks to help them make those decisions.” ■

A Passion for Peregrines

By Renae Blum

Lincoln woman documents the daily lives of the Capitol peregrines for an audience of hundreds.

It's a cloudy mid-September day in Lincoln, and Jeanne Hibbert is on a mission.

Fresh off her shift at Windstream as a digital services technician, Jeanne strides toward the north side of the Nebraska Capitol building, stops at the base of the steps and aims her Canon point-and-shoot camera lens toward the very top. She's not here for the architecture, grand as it is – she's here “for the birds,” as she puts it: the family of peregrine falcons who call the Capitol home. Almost immediately she spots her target, Alley, the adult female, and begins snapping photos with the zoom cranked to the max. To the inexperienced eye, Alley is almost invisible, a faraway dot half-hidden behind a pillar. But Jeanne knows where to look. “She’s in the same spot as she was this morning,” she says.

While Jeanne is doing this, two people stop to talk to her – a Capitol staffer and a construction worker, both of whom know her by name. They each have the same questions: *What’s the news today, Jeanne? Any action?* The construction worker, Charlie Horner, belongs to Jeanne’s Facebook group, Peregrine Falcons Lincoln Ne, which boasts more than 550 followers from across the United States and as far away as Russia, Indonesia and Egypt. Horner joined the group after talking with Jeanne, which sparked his own interest in the birds.

“I’ve made a lot of friends doing this,” Jeanne says. “I’m happy to help spread the word about the



Dinan, the latest peregrine falcon chick to hatch at the Lincoln Capitol building, was banded at three weeks of age to allow researchers to identify and track him in the future.

PHOTO BY JEANNE HIBBERT

peregrines.”

Spring and summer 2016 were eventful for the birds. Alley laid five eggs in April. Just when it appeared any of the eggs had failed to hatch, a single eyas emerged. Nearly all peregrine eggs hatch after 33-35 days of incubation; this youngster waited until day 36. “It was our Hail Mary pass,” commented Nebraska Game and Parks Nongame Bird Program Manager Joel Jorgensen.

Then, in early June, the adult male, 19/K, dislocated the elbow in his left wing, which was surgically put back in place. During his nearly four-month recovery at Fontenelle Forest’s Raptor Recovery, Alley fed the chick and taught it how to fly by herself. “She was a great single parent,” Jeanne said.

Throughout it all, Jeanne has been a passionate, dedicated observer, spending hours of her time most days monitoring the birds’ whereabouts and documenting their activities for her Facebook group. She isn’t a trained photographer, but she’s familiar with a photographer’s working habits. “I’ll come home some nights with 1,500 photos, only 20 of which are any good,” she says. “But that’s the great thing about digital cameras; you can take as many shots as you want

and delete the rest.” She also records all footage from the Nebraska Game and Parks Commission’s streaming video of the falcon nest, checking it later for interesting moments she can turn into screenshots or video. (“I fast-forward a lot,” she says.)

Nearly all of Jeanne’s Facebook posts have more than a dozen “likes.” Commenters regularly ask peregrine-related questions and share their knowledge with others. Many take time to thank Jeanne personally for her work. “Without you none of us would be able to observe ‘our’ falcons once they leave the box,” wrote Mary Frost of Lincoln. “You have made me addicted to the falcons.”

Jeanne says she’s always been interested in wildlife and birds of prey. She first noticed the peregrines in 2006 while parking for work across from the Capitol. “That’s when I decided to carry my camera and see if I could get some pictures of them flying around,” she says. Hoping to share her photos with others, Jeanne started her Facebook page in 2012. She’s amazed at how the group has grown, and says that having an interested and engaged group to share photos and video with has spurred her to spend more time at the Capitol. She’s enjoying a bit of a break at the moment, though.

“I spend the most time with the falcons from early spring, when they start mating, to late summer, while the juveniles are here,” she says. Jeanne and her Facebook group noted when the chick – named Dinan, for former Game and Parks Nongame Bird Program Manager John J. Dinan – first left his nest, as well as when he was last spotted, on Aug. 21. “I believe Dinan is now on his life journey,” Jeanne says.

Do the peregrines have personalities? Jeanne is matter-of-fact: “I like to think they have personalities and emotions – when you see them with their chicks, it does look like love. But I know that most of what they do is solely by instinct, to breed and to eat. They do seem to have habits and preferences, though.”

Recently, Jeanne had the great luck to capture photos of an in-flight food drop: Alley was flying over the Capitol fountain when she suddenly folded her wings and dove toward a smaller bird. (This particular predatory move, known as a “stoop,” has marked peregrines as the fastest member of the animal kingdom – they’ve been clocked at 242 miles per hour.) Snatching her prey in her talons,



Jeanne Hibbert has been keeping an eye on Lincoln’s resident peregrines since 2005, a passion that keeps her busy most of the year.

PHOTO BY RENAE BLUM

Alley quickly tossed the bird to Dinan, who was following just below her. Dinan easily grabbed his lunch and flew back to the Capitol to eat it. Thanks to Jeanne and her camera, falcon enthusiasts across the world got to see how a peregrine teaches her young to hunt.

What does the future hold for the Capitol peregrines? Jeanne predicts that Alley may be advertising for a new mate soon; at 15 years of age, 19/K is pretty old for a peregrine. Alley will have many potential mates to choose from – she and 19/K have defended their nest from many intruders over the years.

Whatever happens, Jeanne is excited to watch it unfold. “I never get tired of watching the peregrines,” she says. “They continually surprise me.”

To see Jeanne’s photos and video, visit her Facebook page, Peregrine Falcons Lincoln Ne. Streaming video of the falcon nest is available at Outdoornebraska.org/falconcam. ■

PHOTO BY MIKE FORSBERG



Ponca's Snowy Blessing

Photos and story by Jeff Kurrus

We thought we would beat the storm, one that would eventually drop eight inches of snow onto northeastern Nebraska one week before Thanksgiving. We were wrong. As we pulled into South Sioux City, the red brake lights of cars could be seen in all directions. It was an apocalyptic gridlock reminiscent of a television zombie outbreak.

Two hours later, after finally wedging our way out of town heading west on Highway 20, we were greeted by blowing snow. An hour later, we were finally at Ponca State Park, our family of four

snowed in.

We make a trek each winter to Ponca State Park with a group of friends, but we've always done so on open roads and hiked through open woods. We visit the overlooks, fish, carve pumpkins and spend a little time away at one of our favorite Nebraska destinations.

However, this year would be different. One, we didn't know if any of our friends would be able to make it through the snow and ice. Two, what were we going to do in this world of white?

We quickly found out the next morning.



Above: Ponca State Park mini-lodge cabins after a winter snowstorm. Whitetail cabin is pictured. Opposite: A winter landscape image at Ponca State Park in Dixon County features white-tailed deer tracks.

Day 1

Our first set of friends showed up, followed by the next, and then the third. The roads coming in weren't perfect yet, but they were improving. "What's the plan?" Terry Mayfield, one of the dads, asked upon his arrival.

"I have a trunk full of sleds and snowboards," my wife Laura answered, which was met by simultaneous approval.

"But I want to see the snakes first," said 11-year-old Gavin Greene, one of the kids in our party.

Even when it's 20 degrees, Ponca still offers the opportunity to see snakes during their Critter Corner seminar in the Missouri National Recreational River Resource and Education Center. With Ponca's Chris Chase leading it, our group touched and adorned various animal pelts and even held Big Mama, a bullsnake.

When the seminar ended, we loaded up our cars, crept carefully to a sled hill located near the Turkey Ridge Campground, and spent the next 6 hours on one of the most entertaining sled hills our group had ever been on. We watched each other, from a three-year-old to a 50-year-old, zoom down on our sleds and tumble down on our snowboards – and we had the entire hill to ourselves. The snow-covered park was a ghost town.

Near dark, we ventured back to our mini-lodge, cooked dinner and settled in for a night of college football, cards and music. There was no place any of us would rather be.



Above, left: Chris Chase, an educator at Ponca State Park in Dixon County, gives a Critter Corner seminar to attendees. He is holding a bullsnake named Big Mama.

Left: Mira Greene, of Omaha, works her way down the sled hill on a kid's snowboard.

Above, right: Terry, Dayzee and Betsy Mayfield pile on their sled in a failing, but fun, attempt to make it down the snow-covered hill.

Right: Three-year-old Eli Kurrus rides a snowboard.



Day 2

A last group of friends, the Chins, made an appearance Sunday morning from Omaha, which wouldn't make much sense unless they were visiting a place like Ponca. Even though they'd be driving four hours between their trips to and from Ponca, they knew the possibilities of their day.

Eleven-year-old George Chin pulled his tackle box from the car and, with Gavin, headed to the trout pond. Sister Grace teamed up with the other teenage girls and helped the younger kids make post-Halloween cookies, while a few of the adults went back to the education center to look at the Lewis and Clark display and watch various birds come to the feeders.

Shortly after, it was back to the sled hill. We spent the rest of the afternoon flying down the hill on snowboards and sleds, our entire group laughing our way up and down, and up and down again. It never got old.

Right: Grace Chin of Omaha holds up a Halloween cookie at the Osprey mini-lodge.

Opposite: A house sparrow visits one of the bird feeders at the Missouri National Recreational River Resource and Education Center.



George Chin of Omaha is all smiles after catching a rainbow trout at the pond.



The Aftermath

Each family faded back toward the city throughout the afternoon, agreeing to do it again the next fall. Since that weekend, I've heard from each of the families throughout the year, who all agreed that the snow-covered trip to Ponca would go down in history as one of the best, if not the best, in our time visiting.

What Ponca State Park showed us was that it doesn't matter what the weather is. If it's raining, we'll play in the mini-lodges. If it's autumn-like, we'll hike the trails, ride the roads, and look for wildlife. And if it snows, all we need are the sleds. And a camera.

For the world totally opens up at Ponca when it's blanketed by white. ■

Winter Reservations

Cabin Notes: With 15 mini-lodge cabins and two "green" cabins open during the winter, Ponca State Park in Dixon County has whatever you need to fulfill your winter family needs.

Use these lodging options, and their discounted off-season rates, as a home base for winter fun at one of Nebraska's most beautiful state parks.

For reservations, visit Outdoornebraska.org and click on Reservations.

Where Time Stands Still

But Ol' Rog doesn't.

By Roger Welsch

As I write this we are bracing for what is predicted to be a major winter storm. Ignoring for the moment that TV weather-guessers have an average that would keep them on a minor league farm team if they were pitchers, we nonetheless drag out the heavy coats and boots, haul in some firewood, check the generator and brace ourselves. Because here on the Nebraska plains, you never know.

I love winter and cold, snow and wind, and I sneer contemptuously at the sissies who flee to warmer climes. I don't care how many Husker sweatshirts they own, they are *not* Nebraskans. Given a choice, I'd go north. The best vacation I have had in this long life was 10 days far above the Arctic Circle in northern Greenland. Linda says that in a previous life I must have been an Inuit. Summer and winter I sleep on the back porch with the windows open. I love winter camping. (No bugs!)

But when a Plains blizzard does blast in, it's not something to toy with. We worry about the power going down. We live at the dead end of a power line, so if anything happens along the way from wherever our power originates, we lose lights, heat, water, everything. I make sure the generator is fueled and ready to go. I check the tractor's fuel and block heater because if the lane drifts full, we're stuck here for a long time. Linda makes a run to town for groceries. I try to accumulate whatever writing work I can accomplish without my computer and lights if we do wind up snowed in. Linda fills some buckets to flush the toilets because like everything else in our home, the pump requires electric power. We gather flashlights, candles, some movies if we manage to keep power, and then close doors and check windows. Linda puts a roast in the oven to build up some heat and to stockpile food for ... for whatever.

It hasn't always been that way. We moved out here to "the middle of everywhere" in 1987 but before that I had an ancient (1872) oak and walnut log house down by the river. I didn't have to worry about the power going out during the long months I spent down there because there was no power, no lines to ice up and go down. I didn't have to worry about starting a vehicle because 1) I probably had to leave it up in town because I couldn't get through the gate at the highway and 2) the kind of cars I drove wouldn't start even in good weather. If worse came to worst, one crank on the old Allis Chalmers WC tractor would get me through the deepest drifts, but often as not I strapped on snowshoes and walked over the hill to town, sometimes for nothing more than to get the mail or share a drink with a friend at the tavern.

Water? Snow is water, and there was a pitcher pump in the lean-to. No pipes to freeze. As long as I had trimmed the wicks and filled the reservoirs, the kerosene lamps never failed. There's no flushing in an outhouse so I didn't have to worry about plumbing there. If I had taken the trouble

to cut, split, stack some good wood – cottonwood is fine for the day; ash, oak, and maple for night – and hauled out ashes from the old Vogelsang barrel stove, the house was warm and the coffee hot. In fact, after a few days, or better yet weeks, when warmth had penetrated those old hardwood walls, I could neglect the fire for many hours and never get uncomfortable. There was no computer, so No. 2 pencils and a Big Chief notepad recorded my thoughts just fine. As for entertainment, when I wasn't busy taking care of all of the above, I kept a good store of books, watched for eagles along the river and worked at my frailing techniques on an old banjo. When the kids were with me, we played all manner of thinking games – Twenty Questions, what living person would we like to have dinner with? What historical person? What character from Nebraska literature?

When I taught at the University of Nebraska I sometimes heard students referring to this kind of thing as "living the simple life." But no, actually it is the opposite: it is the complicated life, because I had to take care of everything myself. Sure, when we flip a switch to turn on a television set, a lot of complicated things are set in motion, but my part in the process is next to zero. If something goes wrong along the line, I'm finished. I have to call someone else who knows about electricity or plumbing or computers or wells or ... whatever to fix it.

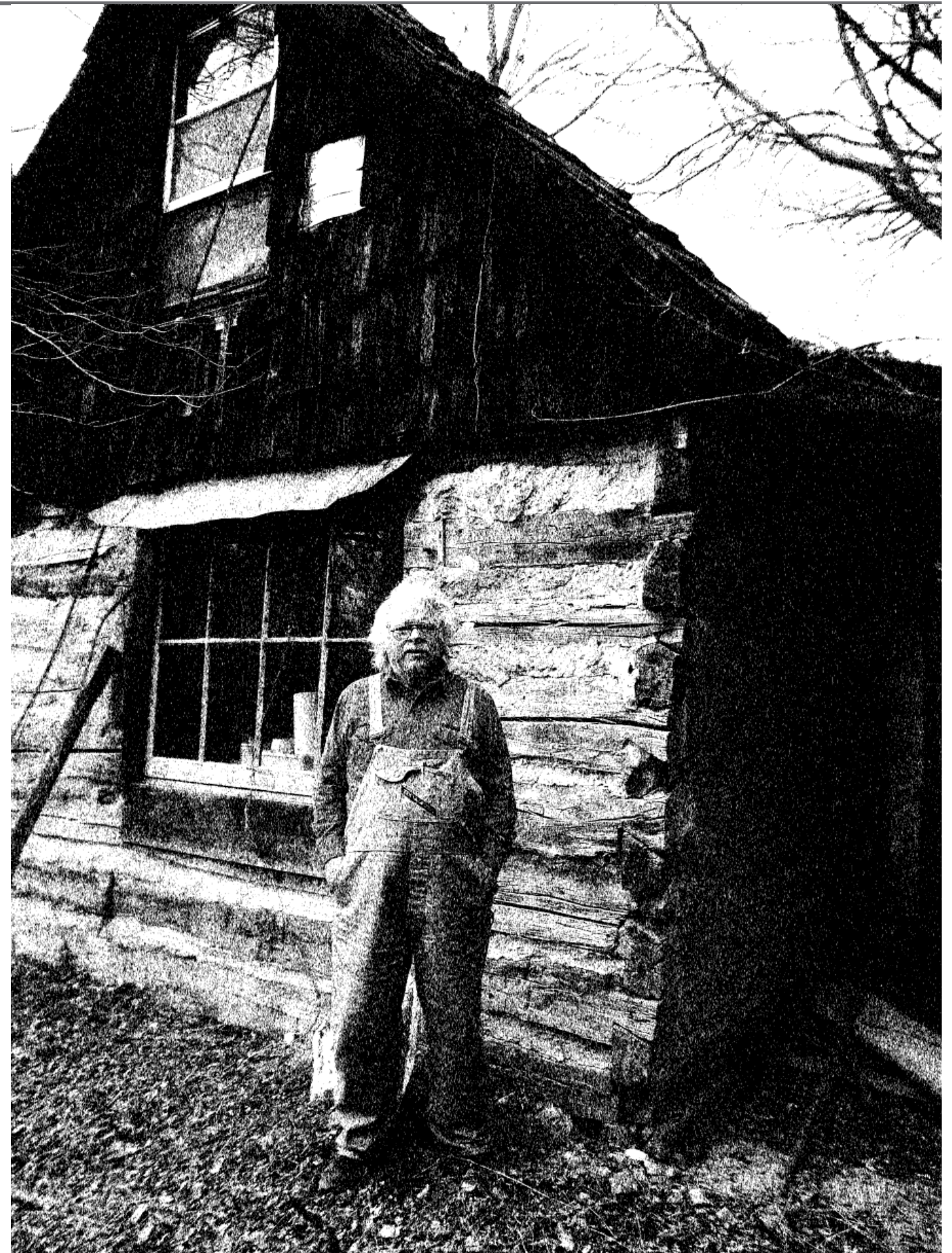
I believe that is what those of us who enjoy real camping seek ... that sense of self-reliance and the satisfaction that comes from being in control of our lives. There is a peace that comes of that even beyond the quiet and calm of nature – even in the depths of the most ferocious winter storm. A couple days ago I spent a day with some buddies at the campfire in front of the cabin just sitting, talking, sipping good whiskey, laughing at stories, and listening to the geese fly and the crows scold. We didn't worry about anything because there was nothing that needed worrying, and those big things we left back in civilization were beyond our reach for those few hours.

As usual, we missed the appointed hour and then showed up at the house a couple hours late for supper. Linda was a trifle miffed at our irresponsibility and asked, "Don't you guys ever look at the time down there?"

I told her in all truth: "Dear, there isn't any time down there."

So bring on the blizzard. We're ready. It's all out of our hands now, so we might as well relax and forget the world where time still matters. ■

Roger Welsch is an author, humorist, folklorist and a former essayist for CBS News Sunday Morning. He is the author of more than 40 books, including his most recent "Why I'm an Only Child and Other Slightly Naughty Plains Folktales" available from University of Nebraska Press.



Welsch stands still (for just a moment) in front of his ancient 1872 oak and walnut log house down by the river.

My First Deer

Don't wait another year.

By Jeff Kurrus

Every deer season comes with anticipation. Regardless of how many times trail cameras have been checked, or how much field scouting has been done, there's no telling what's going to happen when a hunter walks into the field on opening morning.

But what happens if a hunter is not there? What happens if a person interested in getting started puts off this outdoor rite of passage for another year?

Below are a few examples of hunters who didn't put off their first hunts for another season, those whose outdoor memories now include the blow-by-blow account of what happened last year when they killed their first deer. Oh, what stories they are.

So enjoy these few examples from last season, start your own by visiting Outdoornebraska.org for a permit, and then send your images and story to nebtrailcam@gmail.com. ■



Matthew Post, age 12, shot his first deer, a 4x4 mulie, with a Remington 700 .243 rifle.



Chris Clemens got his first deer at age 52 on Nov. 15, 2015, near O'Neill. He was beyond proud of his buck.



William Culjat, age 14, took his first deer near Comstock. He is pictured here with his uncle Joe.



On Nov. 21, 2015, Emma Berry shot her first deer, a mulie, in Chase County.



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Temperature Matters

Determining turtle gender.

By Dan Fogell

First off, I want to say that this is *not* a recipe for poached turtle eggs. That said, we all know the difference between boys and girls. Boys have an X and a Y chromosome, and girls have two X's. At least that's how it works for mammals. It's a little different with birds and a lot of reptiles, as males have two similar chromosomes and females have two different ones. But at least males and females are genetically different. For most of Nebraska's turtles, however, this is not the case.

Temperature-dependent sex determination is pretty much the rule for all of Nebraska's turtles except for the softshells. This means that whether they are males or females is determined solely by the temperature at which they incubated while they were developing in eggs (a trait that turtles share with the crocodilians, by the way). All species of turtle lay eggs. Think about turtle embryonic development in terms of trimesters, much like we think of human pregnancies.

During the first trimester the sex is undetermined. Every egg in a turtle's nest has the potential to hatch as either a male or a female. The second trimester, however, is referred to as the thermosensitive period. This is when the developing turtle gets its gender.

During this period, an enzyme responsible for fluctuations in levels of sex hormones is triggered by temperature. The enzyme converts male sex hormones, or androgens, into female hormones, or estrogens. How active the enzyme is depends on the temperature. If the enzyme is not very active, androgens will not be converted into estrogens and the turtle will develop male sex characteristics. But if the enzyme is very active, it then converts much of the male sex hormone into estrogen, which causes the developing turtle to become a female. So, by the third trimester, the sex has been determined and cannot be



Above: A hatchling painted turtle. Below: a nesting snapping turtle with eggs.

reversed.

Cooler temperatures do not activate the enzyme as much as warm temperatures do. Therefore, males will hatch out of eggs incubated at cooler temperatures (less than 80 degrees Fahrenheit) and females will hatch out of warmer eggs (greater than 86 degrees Fahrenheit). Eggs incubated at temperatures between 80-86 degrees will randomly develop as either male or female. Since all turtles dig nests (another trait shared with crocodilians), those eggs at the top (nearest to the surface) have a better chance of hatching as females, and those buried deeper and cooler are likely to become males.

I know what you're thinking: Can a changing climate have any effect on this physiological marvel? As temperatures during turtle nesting season become warmer, there is strong potential for females to significantly outnumber males. Fewer males available for breeding means some females may not find mates. No mating means no babies, which means a reduced population. Also, since fewer males would be contributing genes to future generations, genetic diversity would suffer. Population decline coupled with reduced genetic diversity



are never encouraging characteristics for a species' survival.

Turtles have a lot of interesting traits: shells, a lack of teeth, really long lives ... but to me, the fact that temperature determines whether they will be boys or girls tops the list. ■

Dan Fogell is an author, herpetologist and biology professor at Southeast Community College in Lincoln.



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Tree Planting Made Easy

Choosing the right time to plant is critical to success.

By Kyle Martens, Nebraska Forest Service

Plant the seed, watch it grow. It sounds simple enough. Yet, when you think about what Nebraska's trees endure, you realize there's nothing cliché about it. Trees are incredibly adaptable, but they aren't invincible.

Picking the right time to plant can be as important as the type of tree that is planted. Fall couples two important factors for trees: moderate temperatures and dormancy. As heat, humidity and winds begin to taper off in August, trees begin diverting energy into their root systems in preparation for winter and spring. What that means for us is that as long as the ground is workable, newly planted trees will do well even late into the fall (evergreens are an exception; stick with spring plantings).

In the Arbor Day state, it is easy to become enamored by the variety of trees that are available. For novice tree planters, we recommend selecting native trees.

Natives come equipped with natural resistance to the state's weather and insects, and truthfully, they were the first pioneers to settle a landscape that was dominated by grass. What better way to tie into Nebraska's tree planting heritage than by adding more American lindens, bur oaks and hackberries to the scenery?

There are many other factors that should be considered before sinking your shovel into the dirt. Soil characteristics such as drainage and PH, proximity to infrastructure, the availability of sunlight, and the potential for contact from herbicides or fertilizers are all important to think about prior to planting day.



Once you have your trees and sites selected, you will want to take some care to ensure the tree's new home is set up for the long haul. Each hole should be shaped like a saucer that is wider than the root system but no deeper than the root's mass. The bottom of the hole should be firm to prevent settling (augers have a reputation for causing settling and are not recommended).

Plant the tree so the base of the trunk is at the original ground level or slightly higher. The first lateral roots should end up just under the soil (1-2" deep) and the root flare (the area at the base of the trunk that swells out

to become the support for roots entering the soil) should be visible at ground level. Shake excess soil from the root system and make sure that all roots are loose and can be spread out in the hole. Use the original soil from the hole to backfill, breaking up clods and chunks as much as possible. Adding water during this process can help remove air pockets and moisten the roots.

Mulching and staking are often overlooked during plantings. Mulch individual trees with a 2- to 4-inch layer of wood mulch extending from the trunk to at least the outer extent of the tree's leaves. Do not use rocks, and give the tree some space around the trunk; overcrowding is never a good thing. Bracing a tree is not a necessity unless it is exposed to winds. Believe it or not, most trees benefit from wind disturbance. If you do brace a tree, use only broad, belt-like materials that are attached to the trunk. Never use wire and remove the staking within one year.

After planting, keep the root zone moist but not waterlogged. In general, a newly planted tree should receive about one inch of moisture per week, including rainwater, during the first growing season. Use a moisture meter to check the root zone frequently for moistness – don't just guess. Many trees are lost to either under- or over-watering.

As with most things in nature, there are always caveats. If you would like more information on how to plant for success or a list of trees that do well in Nebraska, visit us at nfs.unl.edu/tree-care.

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The Hull Story

Shotgun shells continue to change with the times, some of which include advancements to make them better for the environment.

By Justin Haag

When hunters take to the field and notice spent shotgun shells or wads at their feet, a mental scene of a flushed bird or an approaching flock may follow – along with hopes that a veritable replay will soon ensue. Some, however, might have other thoughts. How long has that cartridge been there, for instance? And, if nobody picks it up, how long will it be there before it disappears?

Shotgun shells have considerably evolved since their invention, and continue to experience changes – one of which is for environmental considerations.

In a detailed history of shotgun shells in a 2005 *NEBRASKAland* article, Jon Farrar reported that the first scattergun hulls in the 1800s looked much like today's rifle cartridges with an entire casing of brass. Any costs associated with production were largely offset by their resiliency to moisture and aptness for reloading.

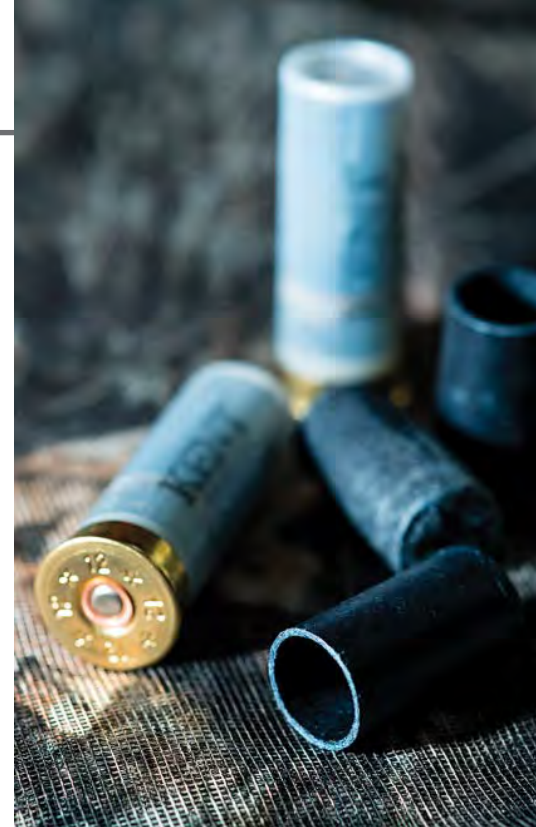
The production expense of metal eventually gave way to other materials,

though. The first paper cartridges were introduced in the 1860s and found popularity with upland hunters. Waterfowl hunters jumped on board when those casings, known as hulls, were later waxed and lacquered. While the less durable components may not have been ideal for reloading purposes, they were more economical and, as a bonus that may or may not have been considered at the time, decomposed much more quickly than their metal predecessors. It's not likely that you'll see many of those old paper hulls still lying around at your favorite hunting spots, as they've been consumed by time.

Following the trend of countless consumer products of the era, Remington revolutionized the field in the 1960s as the first American manufacturer to introduce hulls made of plastic – still used almost exclusively by shotgun shell manufacturers today. The plastic's resiliency to moisture made them desirable to hunters who didn't want to worry about water causing a misfire. The same properties that make them popular, however,

are not always favorable after shots have been fired and the landscape becomes “decorated” with the hulls and the internal component that separates the metal shot from the gunpowder – the wad.

“Hunters might consider shell hulls to be a product of the hunt and of the landscape, but they are no different than a



The Bio-Wad, a “photodegradable” shotgun wad, is featured in Kent’s Velocity steel loads.

fisherman's bait container – both trash,” said Jeff Hoffman, the Commission assistant division administrator who oversees the state's many wildlife management areas. “WMAs are primitive areas with few facilities, including trash barrels, because we would rather spend money on habitat management than hauling trash.”

In an upland area where shots at prairie grouse come between lengths of extensive hiking, what's left behind might be hardly noticeable. Visit the confines of a waterfowl hotspot where stationary hunters regularly harvest incoming ducks and geese, however, and you are sure to notice some wads and hulls cluttering the landscape as evidence of past successful hunting. While some of what's left behind can be attributed to sloppiness, other factors are sure to blame. Tracking down wads after they are blasted from a shotgun barrel can be nearly impossible at some places, and even hulls can fly meters away when ejected from automatic, pump and some break-action shotguns. Such items that become concealed by lush vegetation in the fall may become visible after the landscape turns matted and brown in winter.

The metal head of shotgun shells, commonly referred to as the brass, will eventually corrode and most

shotgun hulls and wads are made from either high- or low-density polyethylene – referred to as HDPE or LDPE, respectively. Those plastics are at or near the top of the scale for decomposition properties. How fast both brass and plastic breaks down depends a lot on its exposure to the elements. A spent hull or wad is likely to stay above ground and receive ample exposure to water and sun, speeding its decomposition to a period measured in years instead of decades and centuries.

Regardless, most surely agree that any litter is bad litter. Some manufacturers have taken notice and are marketing products that break down more rapidly. West Virginia-based Kent Cartridge and its sister company Gamebore of England are recognized as leaders in this area.

In some of its game and target loads, the companies offer Bio-Wad, a fiber alternative to the plastics that is reminiscent of the paper products of yesteryear. Also in their line of products is a photodegradable wad, a plastic product designed to deteriorate quickly when exposed to light.

Company spokeswoman Linda Barnhart said decomposition of the Bio-wad begins from the moment a shot is fired, with heat from the discharge aiding the process. With a little ensuing moisture, such as pond water or precipitation, the wad can completely break down in weeks or months compared to the years as it takes plastics.

“The exact time it takes to break down depends on a lot of variables,” Barnhart said. “We put a few of the wads in water and within just a few hours they started to open.”

Going one step further, scientists at the College of William and Mary's Virginia Institute of Marine Science have been developing a wad using polyhydroxyalkanoates, or PHAs. The PHAs are polyesters that are produced by bacterial fermentation and found naturally the world over. The goal of the institute's effort, which has formed the start-up company GreenOps Ammo, is to create a wad that has many of the same performance characteristics of plastic but transforms to water and carbon dioxide when swiftly biodegrading.

Dr. Jason McDevitt, who serves as GreenOps Ammo's CEO, said the product still needs refining before becoming commercially available, but that the wad has gained favorable attention after review by one of the nation's largest ammunition suppliers. They hope to someday see it being used on a large scale, especially in marine environments.

“Based on our conversations with hunters and shooters, many would be happy to pay a premium for a wad that didn't litter the land or water, provided it still performed up to expectations,” McDevitt said. “Obviously, maintaining performance is the key, and we want to make sure we do not launch a product unless it meets or exceeds all performance specifications and environmental specifications. Unfortunately, the product will carry a premium price tag, but hopefully the price difference will fall close to negligible once sales hit a reasonable volume.”

In some cases, environmentally friendly components are actually favored for how well they function. Hevi-Shot, for instance, uses biodegradable forest products for its Speedball pellet accelerator, which is credited for improving performance, and has substituted plastic beads with flaxseed at the other end of the cartridge as a better way to aid the crimping process. The seed, which is demolished upon firing, is not only biodegradable but is less expensive, said Ralph Nauman, the company's president.

Of course, a long-time method for stretching the dollar and extending the life of materials is to reload spent hulls. Some shotgunners not only reload cartridges, but also opt for biodegradable components when doing so.

Such components may be hard to come by, though, and even shells already on the marketplace, such as Kent's Velocity line with the photodegradable wad, and the Gamebore's Silver Steel waterfowl loads with the Bio-Wad, are scarce when doing a search with major online retailers.

Understandably, many shotgun owners are going to be most influenced by performance, price and availability, and retailers will cater to what the shooters want. If manufacturers produce more eco-friendly alternatives that function as well as the time-tested models, and do it for a competitive price, more hunters will surely jump on board. After all, hunters have led the way in North America's conservation efforts and are always looking for ways to retain the beauty of the lands from which they pursue their game.

Nature-friendly components aside, one of the best ways for shooters to ensure hunting lands remain litter-free is to pick up after themselves and after one another. While one hunter might not be able to track down a wad or hull, a future visitor may stumble across it. With a “leave a place better than you found it” approach, hunting lands will remain free from litter of all kinds and improve the visit for those who follow in every hunter's footsteps. ■



A shotgun wad remains after a waterfowl hunt at Fliesbach Wildlife Management Area.



It can take years for a shotgun shell hull to decompose in the field.

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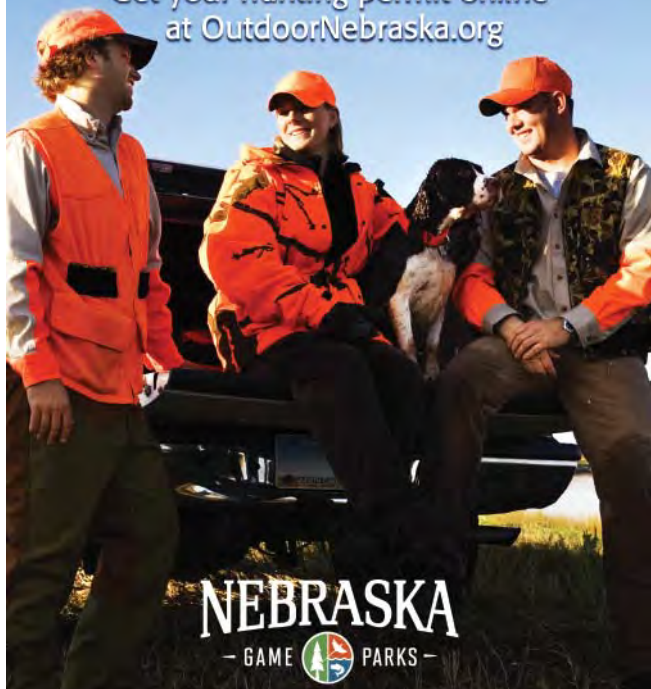
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Lonnie Shafer and Sally, winter 1966.



Lonnie Shafer with Sally and Penny, November 1968.



Alfred Shafer and Penny, November 1969.



Lonnie Shafer and Sally, December 1969.

▲ In the 1960s, my dad Alfred Shafer and I used our beagles as bird dogs to hunt pheasants and quail. As the photos indicate, they did a good job. Both Penny and Sally would trail pheasants and flush them. They also excelled at tracking down rooster ring-necks that only had broken wings after being shot. The 1966 photo was taken in Hayes Center. The daily bag limit was four roosters that year. The other three photos were taken in Orleans where I was teaching and living at the time. Dad was a farmer living in rural Shubert. He traveled to Orleans to hunt on opening day of the 1969 pheasant hunting season. Although Dad is not in the 1968 photo, he helped bag some of the birds on that day.

— Lonnie Shafer, Exeter, Nebraska

◀ This 1958 photo shows Leon Schuette on the family farm east of Hooper, holding the big boar raccoon that had been killing our ducks. His younger brother, Delbert Schuette, holds a yardstick to emphasize the size of this convicted and tried duck killer. Submitted by big brother Larry.

— Larry Schuette, Raymond, Nebraska



▲ Pictured are my father Leonard "L.S." Van Ackeren (far right with hat) and two of his friends that I have been unable to identify. The picture was taken in the Osmond, Nebraska, locker after a successful deer and elk hunt near Pinedale, Wyoming, circa 1948. My father owned the drug store in Osmond for many years.

— Ron Van Ackeren, Bassett, Nebraska



Send contributions to: Portraits from the Past, NEBRASKAland Magazine, P.O. Box 30370, Lincoln, NE 68503-0370. Or e-mail to Tim.Reigert@Nebraska.gov. Photos should show people enjoying Nebraska outdoor activities, such as camping, boating, hunting or fishing, and must have been taken before 1980. We will give priority to unusual photos or activities. When possible, please include a story about the photograph and identify the people, places and approximate date it was taken. Photos will be returned.

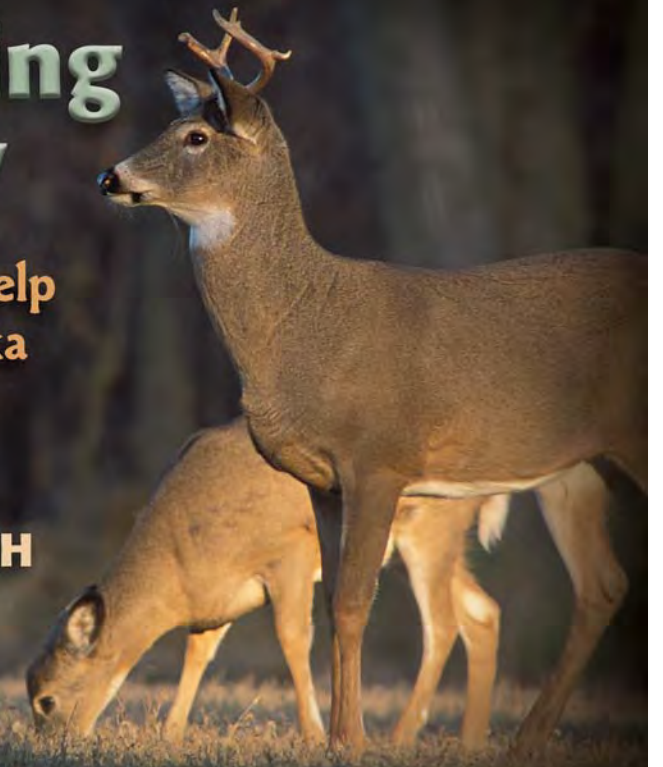
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Vietnamese Shaking Venison

A popular Vietnamese beef dish made with venison.

By Jenny Nguyen

Translated, the actual dish is called shaking beef. It's "shaking" because of the shaking motion you make with the pan when you sauté the meat. This is a popular dish, and I have found that venison works just as well.

Following that note, I'd like to take this opportunity to congratulate my colleague Hank Shaw on his latest cookbook: *Buck, Buck, Moose*. Most of what I know about cooking wild game I owe to Hank. If you find what I do

here interesting, believe me when I tell you that I've only scratched the surface compared to what Hank has been able to discover and create

with wild game. He is a master, and his new book – all 304 delicious pages of

it – is the most thoughtful venison cookbook/guide I have ever had the pleasure of reading. You will learn everything you need to know about hunting and cooking antlered game, from nose to tail, with beautiful photographs by Holly Heyser that accompany step-by-step instructions.

Buck, Buck, Moose includes over 100 recipes from all over the world, featuring centuries-old classics to meticulously invented recipes, including his own interpretation of Vietnamese shaking venison. You will also find steps on how to make broth and stock; how to use the flanks, shanks and the ribs; how to use "the wobbly bits" – offal; and how to perfect your skills in sausage-making and cured meats.

If you love to experiment with game, this book deserves a place on your kitchen counter. Also check out Hank's James Beard Award-winning blog, *Hunter Angler Gardner Cook*, at honest-food.net.

Servings: 2

Prep Time: 30 minutes

Cook Time: 4-7 minutes

Ingredients:

• 1 pound of venison tenderloin or roast, silver skin removed, cut into ¾-inch cubes

• 1 tablespoon of peanut oil

• Cooked jasmine rice, for serving

Marinade:

• ½ teaspoon of freshly cracked black pepper

• 1 tablespoon of soy sauce

• 1 teaspoon of fish sauce



Shaking venison is simply marinated and served with lightly dressed greens and rice.

• 2 tablespoons of oyster sauce

• 2 cloves of garlic, minced

• 1½ teaspoons of sugar

Salad:

• 4 cups of watercress (only tender leafy parts) or arugula

• 1 shallot, thinly sliced

• 1½ tablespoons of unseasoned rice vinegar

• 1½ teaspoons of sugar

• Kosher salt, to taste

• Freshly cracked pepper, to taste

• 2 tablespoons of water

1. In a small bowl, combine marinade ingredients and venison. Cover and refrigerate for at least 20 minutes or up to overnight. In a large bowl, combine all salad ingredients except the watercress/arugula; do not toss until ready to eat.

2. Thirty minutes before cooking, take meat out of the refrigerator to come to room temperature. Next, heat peanut oil in a large pan over high heat. Add venison cubes in one layer, and allow it to sear on this first side for 1 minute. Then shake the pan (or flip with tongs) to sear the other sides for 30 seconds each. Cook venison for about 4 minutes total or until nicely browned and medium-rare.

3. Toss arugula or watercress into dressing. Add a pinch of salt and pepper, to taste. Move greens to a serving dish and pile cooked venison on top. Serve immediately with hot jasmine rice. ■

This recipe and photograph originally appeared on foodforhunters.com.



PHOTO BY JENNY NGUYEN

from NEBRASKAland's Trail Tales magazine for kids

junior journal

interesting notes for readers of all ages

by Lindsay Rogers and Donna Schimonitz

Ashfall Fossil Beds, Nebraska's Buried Treasures

Sandy Mosel, University of Nebraska State Museum

Did you know that Nebraska is famous for its fossils? It's true! If you were a paleontologist (a fossil scientist) you would know that some of the best prehistoric mammal fossils in the world have been found in Nebraska. There is one spot in particular that you would know about – Ashfall Fossil Beds State Historical Park.

What paleontologists have found at Ashfall is very uncommon. They have uncovered more than a hundred prehistoric mammal skeletons of animals such as rhinoceroses, horses, camels and saber-toothed deer, as well as fossils of birds and turtles. Amazingly, a lot of the skeletons are complete.

Ashfall fossils are buried in a thick layer of volcano ash. There are many layers of volcano ash in Nebraska because there are several ancient volcanoes west of us in the Rocky Mountains. The ash from those volcanoes drifted over what is now Nebraska. The layer of ash at Ashfall is from a volcano about 900 miles away (where the state of Idaho is now) that erupted about 12 million years ago. It was huge – a super-volcano. The blast was so powerful

that it blew tons of volcanic ash up into the sky, where it caught in the wind and was carried to Nebraska and beyond.

The ash is powdery stuff, and it has tiny shards of glass mixed in with the ash. These tiny shards of glass are deadly when breathed in. The whole environment was polluted with the ash. When the animals grazed, they had to push the ash aside with their noses. And, the wind blew the ash around, so the animals were breathing in the ash every day. As their lungs filled up they began to get sick and die.

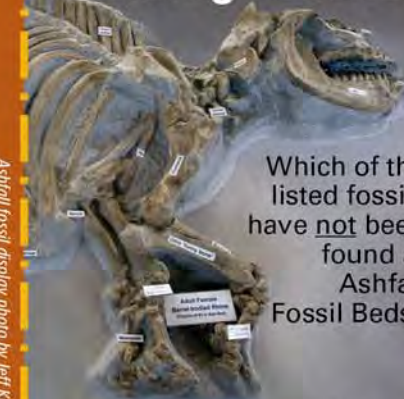
There were watering holes around back then where the animals would go to drink and bathe. One of these watering holes was where the Ashfall park is located. The animals probably laid in the water and mud to feel better if they were sick from the ash. Some of those animals stayed there until they died. This means those animals ended up lying in a low place, where the ash eventually drifted over the top of them, covering them with about 6 feet of ash. It probably only took a few weeks for the ash to drift in that deep, so the animals that died in the

water hole were in good condition when they were buried, and they stayed that way.

Almost 12 million years later, a paleontologist discovered the skull of a baby rhino while he was making maps of the rock layers in the area. The discovery of that skull (and the rest of the skeleton attached to it) led to the discovery of the water hole. Paleontologists have been working there since then, digging up fossils and studying them to learn about what happened. The area was turned into the Ashfall Park so people can watch paleontologists digging up skeletons in the layer of ash were the ancient water hole once was.

If you would like to get a peek into Nebraska's prehistoric past, the Ashfall Fossil Beds State Historical Park is a great place to do it. Come and see! 🦕

Finding Fossils



Which of the listed fossils have not been found at Ashfall Fossil Beds?

CAMEL • BIRD • MONKEY
RHINOCEROS • HORSE
BAT • TURTLE • SNAKE
SABER-TOOTHED DEER

Answers: MONKEY, BAT and SNAKE

NATURE CALENDAR

■ **Listen for owl calls in the afternoon into evening:** early to mid-November

■ **Snakes den up for the winter:** mid-September to beginning of November.

■ **Bittersweet ripens:** June through November

■ **Mammals enter hibernation:** early to mid-November



Ashfall fossil display photo by Jeff Kurrus. Barn owl by Thinkstock



Through the Seasons

Setting out trail cameras before the deer season is a great scouting tool for hunters. Cameras can capture the areas deer are using and whether a particular area has does or bucks traveling through its corridors.

Taken during a particular deer season a few years ago, the trail camera photo above has significant meaning as I never did see this buck during any of the hunting seasons after that. The trail image was taken on an early-season trail to a food source, and once the food source was gone so was this buck.

Hunters often wonder if the bucks captured on camera or the one that got away made it through the months of deer seasons. I am no different; I'm always trying to find distinguishing features on deer to remember them by, whether it is antler points and shape, facial markings, a scar or other characteristics.

I usually keep trail camera images of the larger bucks so I can compare them to bucks throughout the year and into the next deer seasons – always hoping to see how they've grown and if they are still in the area.

As winter became spring that year I headed to the woods in search of antler sheds. I found a few chalky white sheds lying in the brown grasses of years prior and some small sheds that rodents have been eating to fulfill their calcium needs. When I reached the end of the tree claim, lo and behold, I came across a set of sheds almost perfectly placed on a deer trail. Before touching them, I snapped some photos to prove my great find. Normally, a pair of sheds is not easy to find, especially so close together. After gathering them, I eagerly took them home to compare them to the buck photos captured earlier and was able to match them up to their regal owner.

For a hunter, it is nice to know that the big deer made it through the hunting seasons, and it is a bonus to find both sets of sheds. As the season approaches again, I can only hope for another glimpse of the deer that left me with the memory of its photo and sheds.

Julie Geiser
September 26, 2016



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