



A bullfrog hides beneath leaves in the shallows of a pond on U.S. Forest Service land north of Crawford in Sioux County on a fall day. Photo by Bob Grier.

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NEBRASKAland

October 2011



Feeding the Zoo

INSIDE

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Mari Sandoz • Camera Traps • Baby Snakes
Porcupines • Knife Sharpening • Roger Welsch's Olympics

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NEBRASKAland

Volume 89, Number 8, October 2011

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Euroasian fallow deer were introduced along Beaver Creek in the eastern Sandhills by ranchers in 1939 and 1940, putting in motion the only time hunting a free-ranging, exotic, big game species has been legal in the state. TEXT AND PHOTOS BY JON FARRAR



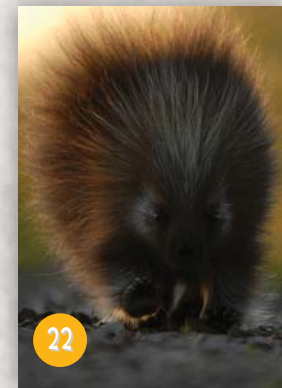
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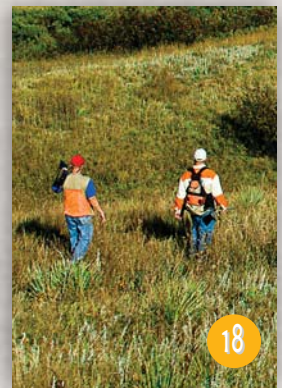
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Cover: The Amur leopard at Omaha's Henry Doorly Zoo is one of many challenges the staff face during feeding time at this eastern Nebraska destination. See story on page 12. Photo by Jeff Kurrus. **Opposite:** The photographer's black laborador retriever, "Captain Tall Roy McGillycuddy," on a foggy early fall morning afield in the Sandhills. Photo by Bill Hager.

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Moth Girls

On the morning of August 12th, my wife Jennifer and our two oldest girls (Madeline, 5, and Anna, 3) discovered these two moths in our front yard in what appears to be a mating position.

We explained that they were just "resting" and would fly away again when they regained their strength. We have never seen insects like this and are unsure as to their identification. The girls thoroughly enjoyed looking them over up close and were kind enough to pose for a few pictures.

Our girls are always on the lookout for new bugs, frequently showing us insects that we seem to routinely overlook. Our entire family enjoys looking through and discussing your great magazine. The girls especially love the "bug" and animal pictures.



Keep up the great work!
Jeff McChesney
Omaha, Nebraska

What your family found was a pair of polyphemus moths, very beautiful and large North American members of the family Saturniidae, the giant silk moths. Polyphemus have an average wingspan of six inches and can range in color from a light to dark brown. They are commonly found throughout much of North America.

– The Editor

“Show Me” The Pheasants

We have subscribed to *NEBRASKAland* for a number of years and thought you might be interested in seeing this photo.

The “Missouri Disterhaupts” came

to Nebraska for about 20 consecutive years to hunt pheasants and often did quite well, as you can tell by this photograph.

Taken in 1991, the photo shows (left to right): Roger Disterhaupt of Ellisville, Missouri; Clem Disterhaupt Jr. and Sr., both of Atkinson, Nebraska; and Lonnie and Dan Disterhaupt, also of Ellisville. Also pictured are Slick and Gunne, two German shorthair pointers, as well as Zeke, a golden retriever.

Clem and Betty Disterhaupt
Stuart, Nebraska

Correction

The infrared photo of a deer that appeared in “Caught on Camera” in the August-September issue of *NEBRASKAland* was improperly credited – it was actually shot by Tom Menze of York. We apologize for the mistake.

Kudos for Aug/Sept Issue

What a great issue. I always find some things to enjoy in each issue but this one was full of winners.

Jon Farrar's article (“A History of Grouse Hunting”) was absolutely great. My mother’s family was raised in Cherry County and from about 1947 to 2011 I have been involved in experiencing the ups and downs of the grouse and prairie chicken saga.

Thanks for such a great report.
Gary Wiles
Sunrise Beach, Missouri

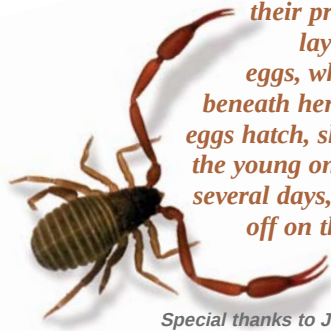


The “Missouri Disterhaupts” came to Nebraska to hunt pheasants for about 20 consecutive years.

NEBRASKAland Visitor Letters

We want to thank all 32 readers that sent e-mails and letters for last issue’s visitor, a **pseudoscorpion** that was on page 3 (see page 11 for the winner, rules and this issue’s hint).

Pseudoscorpions are in the class Arachnida and the order Pseudoscorpiones – their scientific name, however, is more difficult to identify, since there are more than 200 species of pseudoscorpions in North America. They are small, yellowish-tan to black creatures, generally less than 1/8 of an inch in length. They are not an insect, but an arachnid, and are closely related to spiders, mites and ticks. They resemble a scorpion, as the common name suggests, but do not have a stinging tail – in fact, they are harmless to humans. They can live in a variety of habitats, from grasslands and forest floors to the dark space under a sink, often preferring moist habitats. They are predacious, feeding on ants, mites and small insects. Their peipalps – the large claw-like appendages – have a venom gland within the claws, which help subdue their prey. The female lays around 30 eggs, which she carries beneath her body. After the eggs hatch, she will carry the young on her back for several days, before they go off on their own.



Special thanks to Julie Van Meter, State Entomologist, Nebraska Department of Agriculture. Visitor image by Chris Helzer.

www.bugguide.net is a good site for identification

Send your comments to:
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P.O. Box 30370
Lincoln, NE 68503
or e-mail Doug.Carroll@Nebraska.gov
Please include your postal address and telephone number.
Letters may be condensed and edited for clarity. Photographs are welcome and will be returned.

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See You Out There.



www.OutdoorNebraska.org



The Bob Kerrey Pedestrian Bridge is in downtown Omaha near the Qwest Center.

Overlooking the Missouri

Pasquale Mingarelli

One of Nebraska’s newest man-made attractions has become a venue to view one of Nebraska’s most recent natural events. During the 2011 summer months hundreds, sometimes thousands, of people daily walked onto the Bob Kerrey Pedestrian Bridge to view the Missouri River flood.

According to Melinda Pearson, Director of Omaha Parks and Recreation, the bridge, which connects Omaha to Council Bluffs, Iowa, is the “perfect vantage point” for curious onlookers to observe the flood. Pearson said that the bridge, completed in 2008, is safe and was built to withstand a flood. She also added that in preparation for the coming flood, in May the bridge was inspected by HNTB, the engineering and architectural firm that built it.

For those who have not had a chance to observe this historic flood, this vantage point is a place to witness it’s effects.

See You Out There ... But Where?

Do you know where this Nebraska photograph was taken?
See answer at the bottom of page 11.

Upcoming Events

Here is a list of upcoming outdoor events across Nebraska. For more information about these and other events, visit the calendar page at www.OutdoorNebraska.org.

October 1
Living History Event
Fort Atkinson State Historical Park.
Call (402) 468-5611

October 1-2
Autumn Harvest Show
View some of the finest art in the country from many reputable and nationally known artists from around the Midwest.
Eugene T. Mahoney State Park.
Call (402) 944-2523

October 1-2
2nd Annual Heritage Farm Weekend
Event focuses on “passing-on” many of the traditional skills and techniques of a small family farm.
Ponca State Park.
Call (402) 755-2284

October 2, 9, 16
Living History Event
Arbor Lodge State Historical Park.
Call (402) 873-7222

October 8, 15
Hallowfest
Haunted hayrack rides, pumpkin rolling and carving contest, a campsite decorating contest and much more. Ponca State Park.
Call (402) 755-2284

October 8, 15, 22
Halloween Decorating Contest
At the RV Campground.
Indian Cave State Park.
Call (402) 883-2575

October 29
Fall Festival at Wildcat Hills
Pumpkin roll competitions, pumpkin carving contest, fall crafts and much more. Wildcat Hills Nature Center.
Call (308) 436-3777

November 7
Ticket Sale for Annual Historical Christmas Dinner
Fort Robinson State Park.
Call (308) 665-2900

NEBRASKA

Pheasants Forever & Quail Forever

EVENTS

Nebraska Fall Banquet Dates

Date	Chapter	Location
09-14-11	Kearney County PF - 785	Minden
09-15-11	Dakota/Thurston PF - 457	South Sioux City
09-22-11	Burt County PF - 749	Tekamah
10-06-11	Husker Covey QF - 3017	Adams
10-13-11	Upper Big Nemaha PF - 448	Tecumseh
10-14-11	Cass County PF Youth Banquet	Plattsmouth
10-15-11	Cody Ringnecks PF - 431	North Platte
10-15-11	Oregon Trail PF - 222	Scottsbluff
10-22-11	Platte River PF - 555	Lexington
10-27-11	Loup/Platte PF - 221	Grand Island
10-28-11	Custer County PF - 506	Broken Bow
10-29-11	South Central Nebraska PF - 632	Alma
11-04-11	Four Seasons PF - 411	Deshler
11-10-11	Central Nebraska QF	Boelus
11-11-11	Sandhills PF - 471	Ainsworth
11-11-11	Nuckolls County PF - 204	Nelson
11-26-11	Niobrara Valley PF - 289	Atkinson

Nebraska Youth Mentor Hunts

Date	Location	Chapter
09-06-11	North Platte	Cody Ringnecks PF
09-10-11	St. Paul	Central Nebraska QF
09-24-11	Tekamah	Douglas County - West PF
09-24-11	Hartington	Lewis & Clark PF
09-24-11	Blair	Washington County PF
09-25-11	Ainsworth	Sandhills PF
10-01-11	Albion	Boone County PF
10-01-11	Allen	Dixon County PF
10-01-11	Pierce	Elkhorn Valley PF
10-01-11	Tekamah	Heartland PF
10-01-11	Ord	Loup River PF
10-01-11	Kimball	Mile High PF
10-01-11	Nelson	Nuckolls County PF
10-01-11	Oak Creek	Seward County PF
10-08-11	Neigh	Golden Prairie PF
10-08-11	West Point	Lower Elkhorn Valley PF
10-15-11	Plattsmouth	Cass County PF
10-15-11	York	Corn Country PF
10-15-11	Broken Bow	Custer County PF
10-15-11	Walt Hill	Dakota/Thurston PF
10-15-11	Arlington	Dodge County PF
10-15-11	Alliance	Heritage PF
10-15-11	Sidney	High Plains PF
10-15-11	Aurora	Lincoln Creek PF
10-15-11	Hastings	Little Blue River PF
10-15-11	Wayne	Logan Creek PF
10-15-11	Grand Island	Loup/Platte Ringnecks PF
10-15-11	Stewart	Niobrara Valley PF
10-15-11	Palmyra	Otoe County PF
10-15-11	Grant	Perkins County PF
10-15-11	Arapahoe	Republican Valley PF
10-15-11	Crete/Wilbur	Saline County PF
10-15-11	Rosemont	Webster County PF
10-22-11	Oshkosh	Antelope Valley PF
10-22-11	Tekamah	Burt County PF
10-22-11	Syracuse	Cornhusker PF
10-22-11	Hebron	Four Seasons PF
10-22-11	Ashland	Lower Platte PF
10-22-11	Clarkson	Maple Creek PF
10-22-11	McCook	Plains Sportsman PF
10-22-11	Central City	Prairie Creek Ringnecks PF
10-22-11	Kearney	Prairie Hills PF
10-22-11	Geneva	Rainwater Basin PF
10-22-11	Fairbury	Rock Creek PF
10-22-11	Loup City	Sherman County PF
10-22-11	Alma	South Central Nebraska PF
10-22-11	Beatrice	Southeast Nebraska PF
10-22-11	Imperial	Southwestern Nebraska PF
10-23-11	Greeley	Cedar River Ringnecks PF
12-03-11	Humboldt	Nemaha Valley PF
12-03-11	Humboldt	Upper Big Nemaha PF
01-28-12	Bloomfield	Bazile Creek Ringnecks PF
03-03-12	Republican City	Franklin County Covey QF

For further contact information or dates visit www.NebraskaPF.com

Asian Long-horned Beetle

Julie Van Meter, State Entomologist

Summer has changed into fall, and many of you will be heading out into fields and woods to hunt, view the changing leaves, or just enjoy the outdoors. While you are out there, you have a great opportunity to help monitor the state's trees for evidence of invasive pests.

NEBRASKAland ran an article about the Emerald ash borer (EAB) in the May 2011 issue, which included information on how to identify signs and symptoms of possible EAB infestations. That article resulted in readers submitting numerous reports of suspected EAB-infested trees. Fortunately, after follow-up visits by trained staff, it was determined that none of the trees were actually infested with EAB. But the response highlighted the great opportunity for citizens to assist state and federal agencies in monitoring for exotic and invasive pests. While staff with the Nebraska Department of Agriculture, Nebraska Forest Service, Nebraska Game and Parks Commission, and USDA are always monitoring for invasive species, homeowners and outdoor enthusiasts like you also play an important role in protecting our state from invasive pests. New infestations of invasive pests are often discovered by citizens who notice declining trees or observe a strange new creature. Such finds increase the odds that an infestation can be eradicated, and prevent further spread of the pest.

Unfortunately, EAB is not the only exotic, invasive pest threatening Nebraska's trees. Another emerging threat is the Asian long-horned beetle (ALB). ALB (*Anoplophora glabripennis*) was first discovered in the United States in 1996, in New York. It likely was introduced to the U.S. in untreated solid wood packing material. Since that initial find it has also been

found in New Jersey, Illinois, Massachusetts and, most recently, Ohio in 2011. The beetle has been eradicated from Illinois, but infestations persist in the other areas. The USDA has enacted quarantines of the infested areas to prevent the artificial movement of the pest to uninfested areas. These quarantines include prohibitions on the movement of hardwood firewood from infested areas because,

much like EAB, ALB can easily be transported in firewood. The Asian longhorned beetle is a large, beautiful beetle. Adult beetles are approximately 3/4 inch to 1 1/2 inch in length. They have a shiny black body with white spots, very 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.

Signs of an ALB infestation include large round exit holes, up to 3/8-inch in diameter, bark niches chewed by the females when they lay their eggs, and coarse, sawdust-like frass on the ground and branches. Trees infested with ALB may exhibit branch or crown die-back. Adults, which are present mid-summer through fall, tend to stay on or near the tree from which they emerged. 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 tree resources from invasive pests. Take a few minutes to look at the trees around you and 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 and capture it or take a picture. Report any suspected ALB infestations to the Nebraska Department of Agriculture at (402) 471-2351 or the USDA at (402) 434-2345.

For more information on ALB, visit www.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.



Asian longhorned beetle larva.



Adult beetles and the egg niches chewed by the female beetle, which deposits an egg in each niche.



Asian longhorned beetle emergence holes on a Norway maple. The round exit holes can be up to 3/8-inch in diameter.

DENNIS HAUGEN, USDA FOREST SERVICE, BUGWOOD.ORG

UGA1393012

PHOTOS CENTER AND UPPER RIGHT: KENNETH LAW, USDA APHIS PPQ, BUGWOOD.ORG

"Useful, with a pleasant degree of fish odor"

BY DARYL L. BAUER

Fall is my favorite time of year to fish. The crowds begin to clear out after Labor Day and as hunting seasons begin there is less and less competition. Less fishing pressure results in fish that are easier to catch and ones with more consistent feeding patterns. The weather in the fall will still fluctuate between relatively hot and relatively cold, but it tends to be far less schizophrenic than our spring weather.

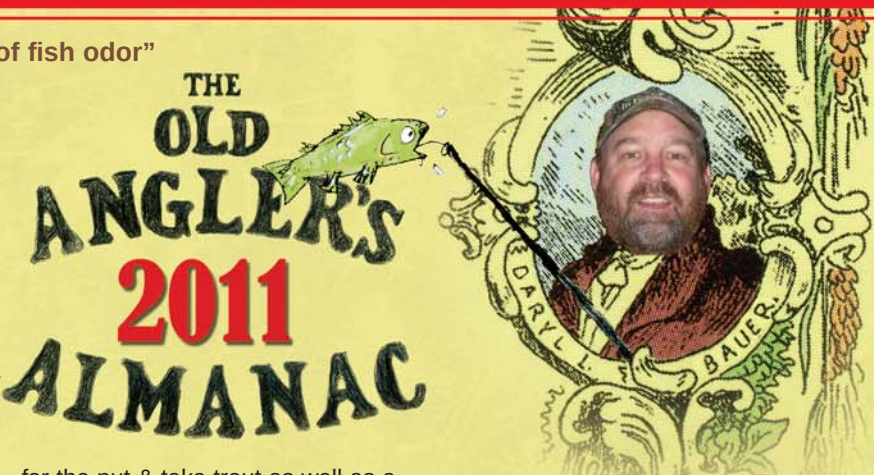
As a result, fish movements and activity tends to be more predictable. Best of all, fish will feed heavily into the fall to prepare for the long cold winter and the spawning season to come next spring (egg and milt development requires a lot of energy and most of our fish begin developing next year's eggs and milt in this year's late summer and fall). The abundance of natural prey usually wanes from the summer's peak as we progress into fall and fish that are actively feeding in the presence of reduced numbers of natural prey means good things for anglers!

Catching Numbers - Big Water

Many of our panfish start heading toward deeper water where they will be bunched up and easy to catch once we get first ice, but not a lot of folks target them in the fall. If a person can find the crappies schooling up in deeper water in the fall, the fishing can be fantastic. Sherman Reservoir would be a good one to try, as well as Oliver and Whitney out west. There should be a bunch of crappies in Harlan nearing 10 inches and larger by this fall and the white bass there will still be chasing shad; maybe on the surface in the afternoons and evenings, in deeper water during the day.

Catching Numbers - Small Water

On a warm, fall afternoon the bluegill fishing can still be excellent on Nebraska pits and ponds across the state, including our interstate lakes. In October we will be stocking catchable-size, 10-inch rainbow trout in a variety of heavily-used park and urban waters across the state. Find the list of those stockings and take the kids fishing. 'Crawlers work well



for the put & take trout as well as a variety of GULP! and PowerBaits; they will take flies too and are curious enough to strike small spoons, spinners and crankbaits.

Catching Big Fish

This is really where it is at in the fall – big predator fish and the best time of year to catch them. Casting or trolling crankbaits or swimbaits on our large reservoirs will work for walleyes, wipers, flatheads, largemouth bass, pike, muskies and any other predators that swim in those waters. McConaughy would be a good one to try for a walleye-of-a-lifetime as well as some big wipers and maybe even a big smallmouth bass. Merritt will also produce some big walleyes in the fall as well as pike, bass and maybe even a state record-size muskie. Water levels have recovered at Elwood and that would be a good bet for some big wipers, maybe a muskie, or big walleye. Branched Oak will produce some big flatties, especially in early fall, as well as some big walleyes and wipers. As we progress into late fall and the baitfish and predators move deeper, switch to vertical jigging spoons, tail-spinners or blade baits where baitfish schools congregate in deeper water.

Trying Something New

Spend some time hiking and exploring some small trout streams in the Pine Ridge. Brook trout can be found in some of those waters, and in the fall, brookies, which are beautiful all the time, will be in spectacular spawning colors. The color of the fish will be matched by the fall beauty of the Pine Ridge buttes and stream bottoms. The fish can be spooky, but they can be caught, sneak into

position to present live or artificial baits or flies.

Not Caring What You Catch

I will keep returning to some of the same waters for this multi-species theme, including Merritt Reservoir. While there, a person could catch everything from a variety of panfish to bass, pike, walleye, muskies and some big channel cats. Elwood is another water body that has always been an excellent multi-species fishery, while Box Butte offers a variety of panfish as well as bass, walleyes and lots of pike. There are others, but if a person stays flexible while fishing those waters they should be able to catch something any time of year, including fall.

Best Bet

I love to fish for big fish, and it does not bother me to put in some time if I know the payoff could be big. I do a lot of that fishing in the fall and when I am doing that I try to pick waters that have big fish potential and fish them hard!

Some of our waters with the best big fish potential, with the best bet for a big payoff, would be places like McConaughy, Merritt, and Branched Oak. There are some really big fish swimming in those waters and if you put in your time this fall you could catch some that would surprise even yourself!

How's that? You know I could fish every day of the year and would love to be able to spend all fall following my own advice!

"The best time to fish is when you have time to fish." — D.L.B.

Officer's Notebook

Walking Stick

Walnut Creek Reservoir is a high-use lake in the metro area. The panfishing is good and there are large channel catfish that people rarely fish for. Plus, most area anglers practice catch and release bass fishing from both the shore or from bass boats, and there can be a dozen boats at any one time fishing this 100-acre lake.

Last May, during the spawn, I witnessed one angler with a fishing pole and walking stick wading through the shallows. He was using a bobber-nightcrawler rig and had several bluegill on his stringer. He would slowly move from spot to spot, intently watching for something. I moved on, but awhile later I found what he'd been looking for – large female black bass laying on their beds. I was amazed to see him drop his fishing pole and bring his walking stick up and using two hands stab into the water. He put all his weight into it and just stood there. After a bit he began dragging his walking stick and a mass of lake vegetation towards shore. Once there from the mess he pulled out a large bass. His walking stick turned out to be a five-pronged spear!

The black bass, a five-pounder bulging with eggs, measured 21 inches. But no more, it could not be released back into the lake. Damages for this master angler size bass were several hundred dollars. The bass poacher also had his walking stick seized where it now sits at the Aksarben Aquarium's law enforcement office.



– Dan Evasco, Conservation Officer, Papillion

Scouting the Next 100 Years

Erica Hengelfelt

Since its conception in 1910, over 100 million people in the United States have been involved with the Boy Scouts of America, either as boyscouts or volunteers. Scouts across the nation celebrated the organization's first centennial last year.

Festivities crossed a wide spectrum, from small parties with local troops to large galas at Ellis Island and in Washington, D.C. The highlight of the celebration, however, was a candlelight rededication ceremony that took place at the National Scout Jamboree, said Renée Fairrer, BSA National Manager of Public Relations.

Though 100 years of Scouting have come and gone, the BSA thinks its future is looking brighter than ever.

According to Fairrer, there are two significant ways the organization is planning to impact youth in the future. The first is to address some of the health issues that plague young people, and the second is through its merit badge program.

"In 2011 we will introduce a new program called ScoutStrong that focuses on healthy living with an eye on issues related to childhood obesity," Fairrer said.

The BSA will also introduce new booklets to its well-established merit badge program. New merit badges will include an emphasis in robotics, inventing and geocaching. Additional badges in search-and-rescue and video game design are to be made available in the near future.

"Technology is everywhere, and young people use it in almost every aspect of their lives," said Fairrer.

To ensure that members can use technology to enhance the Scouting experience, the BSA has provided apps for smart phones, merit badge books for e-readers and uniforms that accommodate small electronics like cell phones and mp3 players.

Scouts, alumni and parents everywhere eagerly anticipate the next 100 years of this beloved national organization.



Refuge Opens To Hunting

Eric Fowler

A portion of the Fort Niobrara National Wildlife Refuge opened to archery and muzzleloader deer hunting this fall, and in the years to come, it will open to elk hunting as well.

More than 5,000 acres north and

west of the Niobrara River, primarily wilderness area, are now open to hunters who obtain a free access permit from the refuge headquarters. No hunting will be allowed during the November firearm deer season.

Access to the steep wooded canyons will be limited to foot and horse from one of five designated parking areas on the west edge of the open area, and to canoes, which can be launched at Cornell Dam and taken out at Berry Bridge, a private outfitter access point. Like all federal wilderness areas, any form of mechanical transportation, including wheeled game carts, is prohibited.

"It's going to be a fairly challenging hunt, for the most part," said refuge manager Steve Hicks. "I don't think it will be for everybody but I think it will be a rewarding hunt for those who put in the work. I think if I do it and get something, I'll hike down to the river and take it out by canoe."

The refuge has a good population of white-tailed deer, including some trophy bucks, as well as a few mule deer, Hicks said. Elk that roamed the wilderness area behind a high fence have been culled and the fence lowered. When the free-ranging elk population in the area reaches a certain threshold, the refuge will be opened to elk hunting. Eventually, captive elk south and east of the river will be culled and more land opened to hunters.

Regulations and access permit applications are available online at www.fws.gov/fortniobrara/hunting.html or by calling (402) 376-3789.

Nebland Flashbacks



In the Fall 1953 issue of *Outdoor Nebraska*, gun safety was the theme of the back cover. Shown here are four (of the six) Will Eisner gun hunting safety illustrations.

These ads were distributed to state agencies throughout the country, and today the poster versions of these illustrations are somewhat rare.

Eisner (1917-2005) was an American comic writer/artist and creator of "The Spirit."

Outdoor Message Plates

Butch Gathye of Gretna truly believes there is no place like Nebraska, and carries his rod and gun across the state pursuing deer in the Pine Ridge, fish at Lake McConaughy and the Valentine National Refuge, turkeys in the southeast and his favorite, pheasants in the northeast. He's had his message plate for more than 12 years.

If you have a unique outdoor message plate you would like to share, or know someone who does, e-mail a photo (high-resolution, JPEG format only, please) of it to Eric.Fowler@Nebraska.gov, along with your name, home town, and a brief description of the interests expressed on your license plate.



New Book From Sartore

NEBRASKAland contributor Joel Sartore's newest book, "Let's Be Reasonable," is a collection of essays and photographs chronicling his time covering topics around the world for both *National Geographic* and CBS News Sunday Morning.

While *NEBRASKAland* readers are familiar with Sartore's unique and witty voice, many readers know Sartore only for his photographs. This collection, however, will further reveal that Sartore's words are just as important, and entertaining, as his images.

To order a signed copy, visit joelsartore.com.

NEBRASKAland Visitor Winner and Hint

Last issue's winner of the *NEBRASKAland* Visitor drawing was Jerry Hendrych of Geneva, Nebraska, who found the **peusdoscorpion** on page 3.

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 bug found in Nebraska that just happened to find its way onto one of the pages of our publication.

We will then gather the correct entries and draw one to win a *NEBRASKAland* Magazine 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.

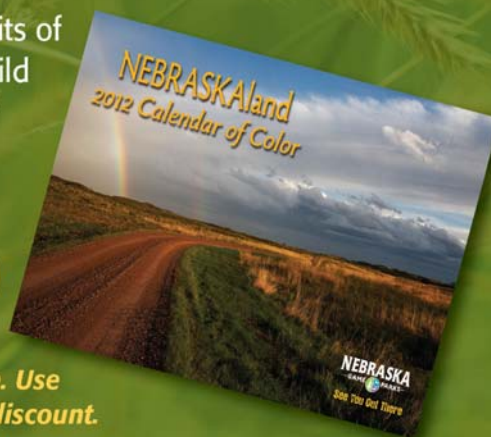
HINT: This issue's visitor is not on page 5, 13, 15, 27, or 31.

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Feeding the Zoo

Text and Photos by Jeff Kurrus

The What, How and When of Dinnertime at Omaha's Henry Doorly Zoo

PLANNING A THANKSGIVING MEAL FOR FAMILY AND FRIENDS, even if you are disliked by most of your relatives and only a few attend, can be a daunting task. And that event only happens once a year. Think about planning a similar meal for 121,475 guests and the mind swirls with complications. It would take an army to prepare that many meals – but that's what one of the world's most famous zoos, Omaha's Henry Doorly Zoo, does daily. Those who work there, however, may tell you that feeding that many "guests" is not the hardest part of their job – knowing what to feed the animals is the biggest ongoing challenge for the zoo's dedicated staff.

What to Feed

"We don't know the nutritional requirements for the vast majority of exotic species," said zoo nutritionist Cheryl Morris. "We know the requirements for the domestic horse, cow, dog and cat, because there has been decades of research dedicated to these findings, but the best we can do with our exotic animals is understand their natural history and extrapolate back to our domestics." Because tigers are similar to domestic cats, for example, the nutritionists start with the domestic cat's diet.

"Obviously tigers are eating raw meat in the wild," said Morris. "Therefore, most zoos feed all captive cats raw

Zoo Numbers

Each week, the following foods are consumed by the zoo's animal collection:

- 10,000 pounds of mixed greens
- 2,500 pounds of raw meat
- 1,260 hard-boiled eggs (of which 95% are hand-peeled)
- 1,200 pounds of apples
- 1,200 pounds of bananas
- 1,000 frozen rodents
- 1,000 pounds of mackerel (for the sea lions)
- 750 pounds of carrots
- 600 pounds of sweet potatoes

meat, regardless of species." Where the knowledge gap appears, however, is what nutrients a wild cat's diet contains. "We know what animals eat in the wild, but we know little about why they eat certain foods and for what nutritional reason."

Because of this knowledge gap, many small exotic cat species in captivity, including servals, bobcats and caracals, develop health concerns thought to be nutritionally related. As a result, Morris and her staff experiment with grain-free domestic cat foods, raw beef diets and whole prey to determine digestibility and gastrointestinal tract health for these species. Yet the zoo's research is not limited to cat species.

In 2005 research began that looked at the effects their diet had on the zoo's giraffe herd. Testing the animals every six months, staff sought to determine what effects the food they were fed had on the amount of fatty acids, calcium



Omaha's Henry Doorly Zoo's collection size, including all the fish in the aquarium, the penguins (pictured) and the coral, is 121,475 – most of which have to be fed daily. Excluding the aquarium and invertebrates, the number shrinks to 8,475 specimens.



Linda Petit and David Hudson prepare produce portions of several daily animal diets in Henry Doorly Zoo's centralized diet kitchen.

Zoo Laboratory

The zoo's nutrition laboratory, located in the Bill and Berniece Grewcock Center for Conservation and Research, was created in 2006 to monitor and improve the diets of the zoo's inhabitants. Containing state-of-the-art equipment used to measure such things as protein, fat and dietary fiber, the primary purpose of the lab's technology is focused on how the zoo-formulated diets are being digested by various species at the Henry Doorly Zoo. Lab results are shared with other stakeholders in the exotic animal community to help provide better health and well-being to animals globally. The lab also monitors quality control in the food they are feeding the animals. "When we get a new batch of hay, for example," said Morris, "we check it for protein and fiber content to make sure it meets our qualifications of where we want it."

and phosphorous in the giraffes' blood. In another example, the zoo's nutrition department conducted numerous experiments with the insect diets of



Lemur species housed in Expedition Madagascar consume diets consisting of high fiber fruits, vegetables, fresh foliage and often some oatmeal.



Although nutritionists have studied cat diets for decades, including those for the puma, little is known worldwide regarding the optimal diet for cats to maintain ideal health.

its amphibian population, with the long-term goal of understanding the nutritional requirements for those threatened species worldwide. Furthermore, following the opening of the zoo's butterfly and insect building in 2008, studies immediately revealed that the addition of amino acids and protein in the form of pollen lengthened the lives of the zoo's butterflies.

The Henry Doorly Zoo's research is also not limited to the confines of its walls – the zoo has a collaborative experiment currently underway in Madagascar where its molecular geneticists are collecting nutrient

information on plant species that lemurs consume in the wild. Because the zoo added a lemur display in its Expedition Madagascar exhibit that opened in 2010, such research is vital to preserving this very popular zoo attraction. "Based on what they consume in the wild and the nutrients they consume, we can start to match diets with our captive collection," said Morris. The answers to many of the zoo's nutritional questions lie in one of its most precious commodities – excrement. "Every nutrient that an animal eats and everything that an animal excretes is measured," said Morris. "We do so to know what the animal is using from that diet. If we're feeding a diet that has the same amount of protein from two different sources, we'll measure the excrement to see if one protein amount is larger in one versus the other diet." If so, then Morris will know what protein is being more efficiently used instead of being excreted.

However, there always remains one special consideration regarding the menu at the zoo, regardless of how efficient or healthy a particular diet is. "We can create a diet with excellent nutrient requirements, but if the animals won't eat it, then the diet is no good," said Morris. "We have to take palatability into serious consideration with our diets."

In the Kitchen

Six full-time employees and up to 20 volunteers make up the zoo's kitchen staff, working 365 days a year to prepare more than 500 diets for Henry Doorly's collection of wildlife. It could be worse – at least they're not making up a meal for each collection member: "Most of our diets are for groups," said Morris. "If there are four

or five monkeys in the jungle, they may eat the same diet."

The difficulty of feeding their collection this way, however, is the social dynamics that emerge within these groups. "A lot of times we create a balanced diet, but the dominant animals in a group will end up consuming the food items they want the most and leave the rest," said Morris. These dominant animals, such as primates, may then become overweight because they seek out the food items high in sugar, leaving only the leftovers for the other animals.

Weight problems also have to be considered in the zoo's cat population. "Some of our cats are overweight or too thin because they are old," said Morris. "Cats that wouldn't typically live 20 years in the wild are living that long in captivity." Other health problems can appear as well, such as renal disease and kidney problems not uncommon in domestic cats. To combat these and other issues that can occur throughout the zoo's collection of wildlife, staff design specific diets for these health concerns and perform frequent medical examinations, including measuring weight and taking blood samples. The zoo also assigns body condition scores for its animals, deciding whether an animal is under, ideal or overweight and adjusting their diet as needed.

"It's challenging to manage their diets," said Morris, "especially in our mixed species displays like the South American display located in the Kingdoms of the Night exhibit, where we have sloths, monkeys and armadillos in the same area." Aside from making sure the animals get what they need nutritionally, staff must also make sure each animal doesn't receive



Above: The sea dragons and seahorses exhibited in the Scott Aquarium consume live mysis shrimp as dietary staples, making them some of the most expensive animals in the zoo to feed.

Below: Members of the zoo's prairie dog colony consume a diet consisting of fresh produce, seeds, nuts and a commercial feed made for rodents.

something toxic to them. "We have had animals allergic or sensitive to certain foods," said Morris. "What is truly the allergen, however, we may never know."

On the other hand, because of the unique digestive systems that giraffes have, for example, they can eat some toxic materials, certain alkaloids, that humans can't. Many zoo animals can eat raw diets because they digest them so quickly, as opposed to human digestive systems that would be bombarded by bacterial infections. Yet these diets are constantly monitored. "We've had interns that do nothing more than watch an exhibit all day for several weeks to see which animals were eating what and how these animals are reacting to what they eat."

When this information is reported back to Morris and her staff, adjustments are made

regarding a particular animal's diet. The zoo's meat and blood diet comes from Central Nebraska Packing in North Platte, and its fruit and vegetables come from the same local vendors that sell to supermarkets and restaurants. "Our meat diets cost about \$1 per pound, while hay is 11 cents per pound," said Morris. "While a white rhinoceros may eat more than 100 pounds of hay per day, it costs a lot more during a year to feed our carnivorous cats."

The zoo also buys a lot of enrichment foods, including yogurt, baby food, Ramen noodles and other pastas, at local supermarkets. "We use these foods for foraging," said Morris. "We try to stimulate their environment and promote species-





Above: The Henry Doorly Zoo has the nation's largest inland aquarium. Left: Most of the snakes in the zoo's collection, including the centralian python, are fed frozen rodents two to four times per month.

appropriate foraging behaviors by scattering these foods. We'll hide food or put food in devices that the animals have to manipulate to get out." Zoo staff also scatter insects, mainly live crickets, for the same purpose. Primates, foxes and rodents all enjoy pursuing live crickets in logs and trees for enrichment, while some cats, including the Siberian tigers and snow leopards, will periodically receive a frozen rabbit for enrichment – but they are given these treats very, very carefully.

Feeding

"We have some large cats that can be really scary, and we also have large cats that will flop over and act like they'd love a good belly rub," said Morris. "In either case, there's nothing

predictable about any of the exotic animals we have here. If the bars weren't between us, we'd certainly be in trouble."

Because all of the zoo's cats are dangerous to feed, staff never go in the cage with these animals. Trained to shift to certain locations upon request, the tigers are watched very closely by keepers to ensure safety. With these cats, and many other animals at the zoo, two staff members must be present to make sure the proper doors are shut and locked so their cages can be cleaned and food presented.

But the cats aren't the zoo's only dangerous inhabitants: All of the Henry Doorly's snakes that are venomous in the wild are still venomous in captivity, and many of its primates, even the small ones, can become aggressive with keepers or other members of their social group during feeding time. Some



PHOTO BY LAURA HESFORD

The author and his daughter Madeline feed budgies at the Henry Doorly Zoo. These birds are also fed a custom-made seed mix, fresh produce and grasses.

of the larger inhabitants of the zoo, such as the pygmy hippopotamus and the rhinoceros, are dangerous not because they are aggressive but because of their large size. Care, regardless of species, is therefore always taken to follow feeding and safety protocols with all the animals.

Purpose

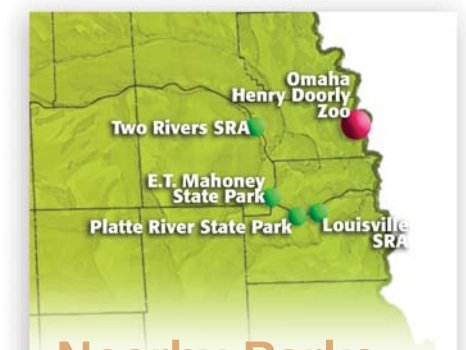
A myth persists that the Henry Doorly Zoo's purpose is to capture, breed and release animals back into the wild. While Henry Doorly does have one of the world's largest frozen zoos, with semen from thousands of animal species stored, release is not its goal. Conservation is.

"We spend time studying nutrition with our captive populations so we can better manage those populations not only in captivity, but the wild as well," said Morris. By studying how certain animal species react to particular plants, such as bamboo for example, the zoo can potentially aid ecologists in saving these plant populations, thus conserving plants and animals alike.

Morris and her staff share nutrition information through publications, manuals and contact with other zoos and professional organizations, including the Nutrition Advisory Group to the Association of Zoos and Aquariums. Plus, the zoo works with locals in the community, including the school

systems, to ensure that information regarding animal survival is relayed to the masses.

"Life expectancy is very species specific here," said Morris. "We do so much work with our diets so we can keep these animals alive here longer in an effort to educate the public. While we obviously have a role of displaying wildlife, we have a larger role in conservation, which is our most important responsibility." ■



Nearby Parks

If you're wanting to visit the zoo and stay at a nearby park, there are a few options. Two state parks (E.T. Mahoney and Platte River) and two state recreation areas (Two Rivers and Louisville) are close by. For more information and to make reservations, visit www.OutdoorNebraska.org.

Multi-tasking on the Refuge

Photos and text by Eric Fowler



The author, left, his black lab Nikki and Ryan Hawley of Gretna wait for the next flight of ducks on a drought-sapped Rice Lake, one of three lakes on the Valentine National Wildlife Refuge open to waterfowl hunting, on a recent October trip. The increased risk of poor weather proved true on this trip, but 30-mph winds and drizzle were the only challenge to a limit of ducks.



We have become a nation of multi-taskers. We do as many things as we can at once, often while driving, and seldom do any of them well. But when you take a fall trip to the Valentine National Wildlife Refuge – or any other Nebraska locale offering prime late-season fishing and early-season hunting – multi-tasking can save a weekend.

Cast-and-blast opportunities begin in earnest when grouse season opens in September. The opening of duck season in early October adds yet another hunting option. Some day, on a whim and a great weather forecast, I'll pack rod and gun and head to the refuge for the pheasant opener and have a third. Archery deer hunters have a fourth.

The hunting options are good to have for guys like me who live five hours from this slice of heaven: Wind, rain and even snow – but mostly wind – can scuttle a day or even an entire trip on the water. Which is too bad, because the fall bite for northern pike, largemouth bass and even perch and bluegills can be epic. But in the Sandhills, if it isn't blowing, you'd better fish now. You can always hunt when it starts blowing again. ■



Above left: Hawley casts for pike on Clear Lake on the first evening of an October trip. It was the only time we saw the sun all weekend.

Left: Hawley and Gregg Sweley of Scottsbluff walk the ridge above Clear Lake in search of sharp-tailed grouse on a September afternoon. The view from the top is reason enough to hunt sharpies, but a grouse hunt around Duck, Rice or Watts lake in October is also a great way to scout for the next day's duck hunt.

After a long day of hunting and fishing, Hawley (right) and I relax around a fire at the Big Alkali WMA campground. Camping isn't allowed on the refuge, but Alkali and Ballards Marsh WMA provide primitive options near the refuge for hunters and anglers, who can also opt for cabins at Big Alkali Fish Camp and Lord Ranch Resort, or make the 20-mile drive to Valentine each day.



The North American Porcupine

Text and photos by Michael Forsberg

These seldom-seen mammals, known for their association with woody country, also live in tundra, desert and prairie habitats. While their quill-related reputation precedes them, other traits also make these Nebraska residents quite fascinating.



A porcupine rests among the rocks of the Niobrara breaks in Sioux County.

Many years ago, a rancher friend, his youngest son, and I stood on the edge of a high bluff overlooking the upper Niobrara River Valley in the Nebraska Panhandle – a stark, yet beautiful, country where water, weather and time have shaped sedimentary layers of rock into wedding cake-shaped buttes, box canyons and rolling expanses of treeless shortgrass prairie.

It was an early summer evening, and we were glassing for raptor nests pinned on clay-colored cliff faces far across the valley. What wandered into our field of view instead was a porcupine and its young cub, not yet half the size of its mother, waddling along in the shadows of a small canyon directly below us.

Nearly blonde in color, the pair were heading to the terminus of the canyon along a well-worn cattle trail that connected the green belt of river wetlands below. After cutting across a patch of blue grama and evening primrose they reached their destination, a rock slide at the base of a steep bluff that fortified the entrance to their cave-like den. The adult and its youngster lingered outside the den entrance for a moment looking back out across the valley, then disappeared into the shadow.

Before that day, I knew of porcupines as creatures of the woods, but here they were in a rugged grassland landscape where the nearest tree was a grove of cottonwoods a half-mile down the valley and beyond that, the dark brow of the Pine Ridge escarpment peering over the northern horizon some 15 miles away.

The North American porcupine (*Erethizon dorsatum*) belongs to a family of 12 mostly South American rodent species and is the only one found as far north as the United States. Primarily creatures of coniferous and mixed woodlands, porcupines are also found in tundra, desert and even prairie habitats, and can live in altitudes from sea level to timberline. Their broad geographic distribution stretches across much of the northern and western United States and Canada, from interior Alaska to northern Mexico. In Nebraska, they are typically found in the western half of the state.

The porcupine is the second largest rodent found in North America after the beaver. Stout in appearance with a small, dark head, dark eyes and adorned with its long, signature, yellow-blonde quills, a porcupine can be two to three feet in length from nose to tip of tail. Adults typically weigh between 15 and 30 pounds.

Equipped to climb trees, a porcupine's feet have padded, pebbly soles for grip, a muscular tail for balance, and strong, long-curved claws. Yet they are adept on the ground and are even capable swimmers, their hollow quills providing an extra layer of buoyancy.

A porcupine's 30,000 or so protective spines, or quills, are stiff hollow hairs three inches or more in length with barbed tips across the body except on the underbelly. Underneath the quills are long, coarse guard hairs that in turn protect the soft dark underfur that provides warmth in the harsh climates in which they live.

When threatened, porcupines defend themselves by turning their hind end towards their intruders, erecting their



After dark, a porcupine walks through a camera trap on a fallen log spanning Steer Ranch near Lynch.

quills and lashing out with their well-armed tails. Porcupines have few natural predators, but most creatures that successfully hunt porcupines learn to flip them over to expose their unquilled underbelly. Natural predators include fishers in the north woods, and coyotes, bobcats, cougars and great horned owls throughout the rest of their range. Mostly nocturnal, slow moving and with poor eyesight, porcupines are frequent road kill victims – vehicles likely account for more mortality annually than any natural predation in areas also frequented by man.

Porcupines are considered solitary creatures except during brief mating encounters in the fall and mothers with their young. After a seven-month gestation period, a single porcupine cub is usually born in late-April or May. The cub is born precocial, meaning fully furred, with open eyes, erupted teeth and the ability to walk, climb and defend itself almost immediately. The cub is weaned quickly and able to feed on its own in a couple weeks, but typically remains with its mother into the fall season.

During the summer, both a porcupine's food choices and home range expands. Vegetarians, they wander widely foraging mostly on the ground seeking out new succulent stems of grasses, sedges and wildflowers, along with fruits, tubers, seeds and other items later during the growing season.

In the winter, a porcupine's home range shrinks considerably. They do not hibernate, but they seldom wander far from their den site, and will sometimes den communally to conserve energy. In the cold season, they

den near trees and feed almost exclusively on the inner bark, or cambium, of trees and shrubs. They have a taste for wood and a unique ability in their digestive system to digest cellulose most other mammals cannot. They may feed on parts of a single tree for weeks, as evidenced by a tree with a girdled trunk and bark-stripped branches. But like most species, winter is a lean time and they typically lose considerable weight before spring.

Porcupine are long-lived, highly intelligent creatures that can live 10 years or more in the wild. In certain locations, porcupines have proven to be a nuisance, with a taste for corn, rubber, wood, salt and certain glues used in construction. Long ago, statewide bounties were issued on porcupines. Today, thankfully those bounties are gone, as local control of problem individuals is sufficient.

For most people, admiration for the porcupine's many talents and the unique role they play in the natural world as harvester, pruner and grazer far outweigh the challenges they sometimes pose to people and their property. Porcupines are keenly adapted creatures and are well-suited for the myriad habitats in which they live both here on the Great Plains and across North America. ■

Michael Forsberg is a professional nature photographer and contributing editor to NEBRASKALAND. To see more of Mike's images, go to www.michaelforsberg.com.



Sojourn at Rock Glen

Essay by William Beachly, Hastings College

Photos by Adrian Olivera

“I’ve admired these same colors in the Painted Desert of Arizona, and here in miniature is a place just as wondrous.”

Over half a century ago, Loren Eiseley ushered in his book, *The Immense Journey*, with his exploration of a crack in the ground he called the “slit” – “A narrow crack worn by some descending torrent begun secretly, far back in the prairie grass, and worked itself deeper and deeper into the fine sandstone that led by devious channels into the broken waste beyond.” Seekers of an ‘Eiseleyesque’ experience, a baptism of sorts, sometimes find ourselves in the wilderness, peering into the slit, knowing the land will yield some new insights, each unique to the viewer. This I why I explored the slit.

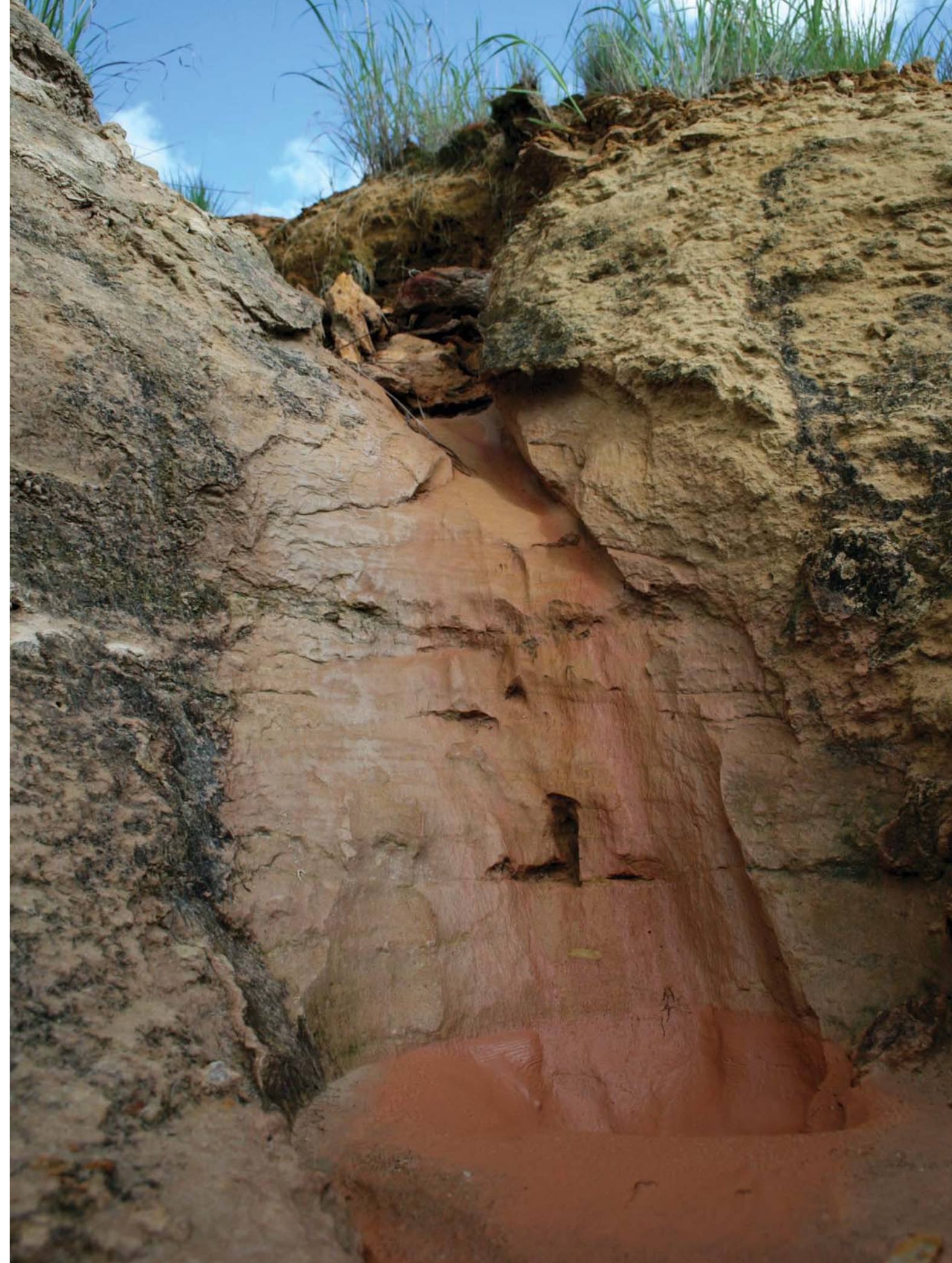
It is mid-June in a prairie remnant in southeastern Nebraska. Everything seems to be in a timeless pause. I relish in this utter silence, absolutely no human sign other than the minimum maintenance road that brought me here. The stillness forces me to pause, to quiet the normal buzz that comes from between the ears, and to notice that the plant I just brushed against has reacted. Its leaves are slowly folding together like an attitude of prayer. Lowly in stature, its stems are topped by pink balls of flowers like pom-poms. The pink of these flowers draws my attention to other pinks in the green sward – pink quartzite rocks and pink clays exposed where this little gulley runs.

There are some rounded gravels too, probably washed from that road, but ultimately washed down from the Rockies and mined from the Platte or one of its precursors to be spread to neat one-mile grids over an unruly landscape. But unlike these river gravels, the hard quartzite is more angular and edgy, and some are as large as watermelons. These are part-and-parcel of the layer we call glacial till. Parcels indeed, for they have traveled hundreds of miles to get here. The pink quartzite from the Sioux uplift of South Dakota, and the gray granites scraped by a glacier’s whim from the craton, the heart of our continent, exposed in Minnesota. Scanning up from the gulley I see some are actually boulders emerging from the sod. Their true dimensions as secret as those of an iceberg one could only guess at from the surface.

Not far from here, just east of Fairbury, I visited the largest such ice age “erratic” known in Nebraska. The farmer who pastured the rocky land around it may have appreciated the shade it afforded his livestock, but one day a fellow from the city offered him \$1,000 to haul it away. Today, these glacial boulders are yard trophies to break the bluegrass monotony of suburbia. But the farmer’s son was suffering from asthma so the money was welcome and he sold the boulder. But no technology of those times could budge that boulder, and it sits today where the glacier decided it should sit.

But more colors return my attention to the here-and-now of the gulley. Native rock is rarely exposed in loess-covered Nebraska. Here not only the stones bring colors, but the clays are a Neapolitan blend of white, pink and green, with some orange, gray and brickish red as well. These are complex oxides, hydroxides, sulfates and carbonate versions of iron, aluminum and silica. Salt-and-pepper mottled wolf spiders dart over the tiny fractal patterns of erosion that dissect the clay sides of the gulley. I’ve admired these same colors in the Painted Desert of Arizona, and here in miniature is a place just as wondrous and strange because of the juxtaposition of lush green grasses. There are two complementary aspects that exemplify the beauty of Nebraska and the Great Plains. One is the vastness – the extent of the horizon, the passage of immeasurable cloud wraiths both formless and formed, the mirage of distance and perspective. The other is the peculiar – those rare places that reveal some circumstantial intersection of erosion, bedrock or water. These are unexpected places. Some lie in plain sight but are known to few. To visit others requires diligence and luck and a submission to a test of the elements beyond one’s comfort zone. Eiseley sought out such places throughout his life, and

Flecked with pink and marbled in gray, a cherubic Woodhouse's toad reposes on a pink surface near to where a freshet has molded a clay basin (right).





The rapid pace of erosion is evident where it has been abated under harder sandstone. While larger toadstool rocks occur in Kansas, the process in miniature here reminds us how transient these exposures are.

both of our childhoods in Lincoln intersected at some of them, one being the Green Gulch. What formed that grotto was Antelope Creek cutting down through the Dakota sandstone, part of a vast rock unit called the Dakota Formation.

The Dakota is without peer in the category of oddness. Its colors range from rusty ochre to sulfurous yellows, inky blue to borax white – its textures

from ultrafine clays to gritty sandstone. It can form odd concretions the size and shape of hobbit homes. Named for the type locality (Dakota City, Nebraska) it outcrops from northern Iowa through eastern Nebraska and central Kansas. Farther west it dips under younger strata, and erupts only where the Rockies pushed and tilted it in great slabs to form “the Dakota Wall” of the Sangre de Cristos, or the

“the Garden of the Gods” by Pike’s Peak. It is part of the natural palate of Ghost Ranch, New Mexico that inspired Georgia O’Keeffe. Its age is 100 million years, give or take 10 depending on location.

Under eastern Nebraska it can be 100 meters thick where fully buried, but scraped thinner on its eastern margin. Jefferson County is one of the best places to see it, and is the reason I’m here at Rock Creek. Perhaps this isn’t entirely a natural exposure. The Pawnee and earlier peoples valued these colorful clays as pigments, and may have crafted pottery from them. I smear a line of terra cotta clay on each cheekbone, feeling the cool concoction of iron oxides. Today, we still make bricks from it and have found new expressive outlets in brick relief mosaics such as the train scene in Lincoln’s Haymarket.

My progress is impeded by a large clump of red cedars, and with difficulty I spread their spiky boughs apart and enter a shady cool retreat. In it the gully has gained a spring. The water is cool to the touch, with an oily-looking Technicolor layer that is due to natural bacteria. A leopard frog sits motionless in the cool green darkness, and water striders skitter over the surface. The

contrast to the arid, hot, bright world beyond is even sensible in the smells. I find a shard of old pottery. It is the handle of some brown jug that must have been fairly large, surely a vessel with a story. ‘On aways’ up the Oregon Trail from here, is a place called Whiskey Run, named for the day government agents poured a bootleggers’ stash down the creek. I leave the pottery for future wanderers to ponder over. Leaving is always better than taking.

I’ve entered a sunny meadow through which the little stream is disconnected pools, some with sandstone margins, others accented by a glacial boulder like some Oriental sensibility at work. The slopes are grassy but here and there a bur oak spreads out in its characteristic mushroom form as a savanna tree. Amid the grasses, flecks of brightest red prove to be tasty strawberries.

Strawberry fields indeed, forged of some alchemy of CO², soil, sun and DNA that mix to make these berries the purest primary color. Why is this abundance of native fruit not consumed? Surely there are prairie chickens, quail, deer, raccoons and others who would eat these. But they are here for me

alone today. In their book, *The Prairie*, Weaver and Albertson offer diametrically opposed viewpoints of the prairie as both a field of battle and an accommodating cooperative venture. Can it possibly be both?

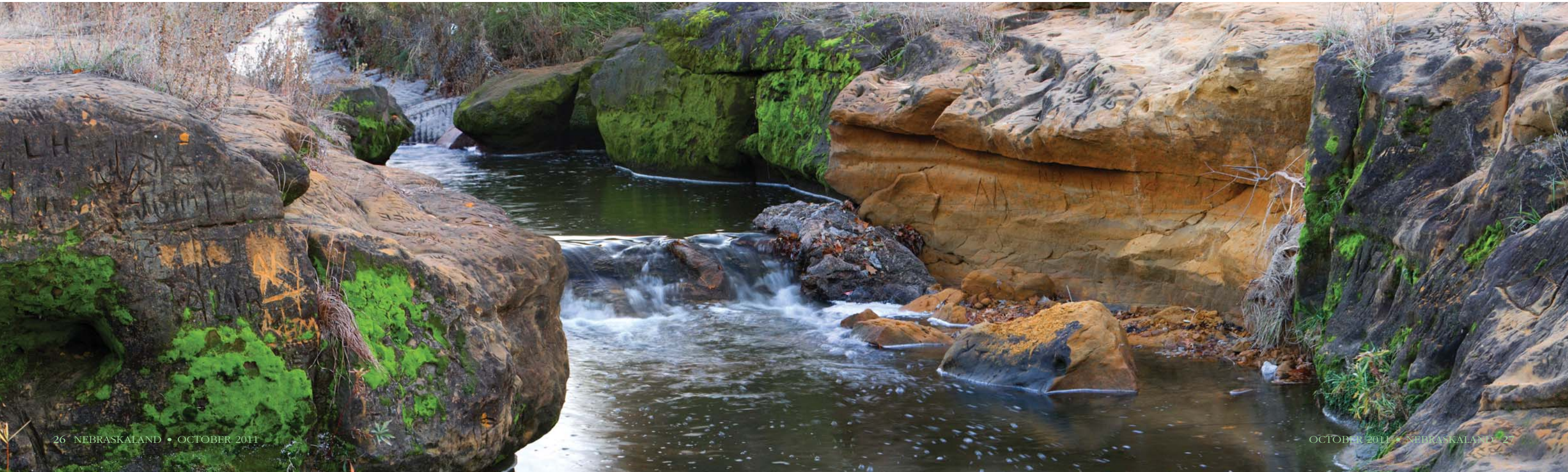
I pick my way carefully around a patch of poison ivy and into a solid growth of mature cedars. The shade is so complete only moss and a few minty herbs can grow. The stream is starting to look like a real stream, cutting banks up to six feet high that are reinforced by gnarly tree roots. Ferns and plate-sized mushrooms emerge from the north-facing banks, hanging gardens reflected in tea-colored pools. One tiny cup fungus is scarlet red inside, just big enough to hold a single raindrop. I wonder what “cavorting beasties” like tardigrades and rotifers a microscope would reveal in such places.

Downstream the banks are higher and more sculpted from solid sandstone, as tree roots are at once holding and prying apart the relatively fragile layers. These layers show bedding in intersecting angles characteristic of shorelines or sand dunes, and occasionally layers of much darker material that is lignite, a flaky type of coal deposit that indicates bogs or marshes. Between occasional



ABOVE: One Jefferson County farmer carved his own mausoleum in the Dakota Sandstone, and its arched entrance bears runes of later visitors, and gives purchase to gossamer webs.

BELOW: Antelope Creek cascades over a shelf of Dakota sandstone in a childhood haunt Eiseley called the Green Gulch.





A fractured concretion reveals utter mysteries: What sort of impressions could these be? The interior material is as hard as cement.

pools in the streambed are bars of sand, with scattered sandstone fragments. Some are rough, crusty balls the size of donut holes, and a few are broken open to reveal concentric rings of purple around a hollow core. Some cores have pyrite crystals within, known as “fool’s gold.” These are the Dakota’s most curious productions, known as concretions. They are mostly spheroids, but I find one that is oblong and has been severed on one side to look like a pouring vessel or Aladdin’s lamp. It would easily hold a pint of fluid. Other pieces show streaks and bands of red and white, like saltwater taffy.

What created this variety is necessarily complicated and belies the shape-shifting nature of the Dakota’s origins. Nebraska has a record in deep rock of inland seas, rich with bizarre invertebrate life from the Paleozoic Era. Some of these limestones are quarried in southeastern Nebraska. After this comes a hiatus, a gap in the record of deposition extending to the early Cretaceous Period of the Mesozoic Era. It is evident in the geologic exposures at Schramm State Park and over the “cave” at Indian Cave State Park. At this time, the inland sea transgressed again over the continent, creeping in from the north and south to connect in the center, covering what were southwest-trending streams.

The Dakota in Nebraska was laid down as the eastern shoreline of this sea in a complexity of deltas and estuaries during a time when Nebraska had a humid, subtropical climate. It would, perhaps, be similar to today’s Gulf Coast, except only a few of the plants would be familiar. You might recognize a pine, see other trees resembling sycamore or

sassafras, magnolia or laurel, but no grasses yet existed. Some of the coastal forests dropped leaves in streams emptying into the sea from highlands to the east. And some were preserved as fine grains of sediment entombed them. As you went west into what is now Colorado, the

sea became deeper and sediment beds were thicker, the fossils more typical of open water, but eventually you would reach the western margins of this inland sea, and again find coastal deposits. The dynamics of these coastal deposits are of much interest to geologists like Matt Joeckel at the University of Nebraska, who recently discovered the only known dinosaur tracks in Nebraska, here in Jefferson County, in what could have been a sandbar in a tidal channel. The discovery of exquisite fossil flower impressions near Rose Creek generated great interest in the Dakota as a record of both terrestrial and marine activities from an interesting period in the history of life, one that indicates the emergence of flowering plants.

Sometimes the clues are fern spores or grains of pollen, or they may be invertebrate life that belies brackish or freshwater habits. These clues suggest a dynamic, changing environment. Sea levels were rising as oceans swelled and a new molten seafloor emerged. And there was probably climate change. We can infer climate from ratios of isotopes (heavier or lighter versions of common elements like carbon and oxygen) trapped in these deposits, and it appears to have been a greenhouse world.

The sea was then succeeded by other,

deeper seas in the late Cretaceous (the “Niobrara Sea”) but eventually, around 70 million years ago, North America pushed back. Despite, and perhaps because of, the increasing load of sedimentary layers the continent bowed up, instead of down. What was a continental low point would become the continental divide. Seas retreated, the Rockies emerged and to the east the Great Plains was slathered over the emergent sea floor like layers of plaster, spread from the exposed sedimentary caps over the Rocky Mountains and carried by streams to create a landscape that now sloped eastwards. The Dakota was mostly buried except at its eastern margin, where parts were eroded by streams carving down into the land.

This landscape was reworked when glaciers covered eastern Nebraska nearly a million years ago, diverting stream courses to the south. And during later Ice Age periods, intense winds blanketed this landscape with fine loess deposits. But these paleovalleys remain and channel ground water, some within the sand grains of the Dakota itself, others in overlying gravels of the pre-Ice Age streams. So the Dakota bears an important aquifer, more expansive than the Ogallala Aquifer above it farther west, but interesting in that sometimes



Like a jawbreaker candy, this concretion bears witness to hidden alchemy wherein iron and other minerals blend colors that, save the accidental breakage of stream-transport, no human would see.

the water that trickles through it carries salts and minerals. This created the salt marshes of Lancaster County, part of J. Sterling Morton’s interest in settlement there. And the Dakota occasionally grows fascinating gypsum crystals where groundwater seeps out.

Groundwater appears to be the creative force behind the concretions as well. They can begin as a nucleus of material generated by a bacterium, but from there grow by transport and hardening of mostly iron compounds that lend the fantastic colors. At Rock City, Kansas, one can play on gigantic marbles, many over 25 feet in diameter, left as if by some giant race of children playing in a grassy field. The locals speculated how they got there, but the answer appears to be they grew there while buried, cementing the surrounding matrix of sandstone, only to eventually be uncovered by erosion. Most of them sit incongruously on softer pedestals of sand. Such concretions are known from a few other arid places, but most fascinating is their resemblance to features detected in photographs of Mars.

Back here on Earth, my stream continues its sinuous cutting, and the exposed sandstone faces are more fanciful. Some cliffs stretch 20 feet over me as the stream just gets better and better. It is now perennial enough to have darters as a testament. These orange-throated darters are, hands down, the most beautiful fish in North America. They lack the swim bladders of most fish and thus sink to the bottom where they anchor their positions with stout pectoral fins. They move in jerks, hence their name, and can be quite cryptic against a gravel bottom when still. Only the males in breeding season have showy colors, but these are such an appealing mix of orange and blue that females cannot resist them. That is, if the stream is crystal clear.

The flow is slow, but a cloudburst can change that in an instant, substantially reworking all that I’ve witnessed thus far. Heraclitus said a man never steps in the same river twice, and I am humbled by this thought. The forest here is more mature, with oak and walnut and hackberry casting a deep shade. But filtering in from an edge is a remarkable brightness, a quality of light that beckons. I follow, my legs getting tangled in raspberry and

gooseberry thorns, and emerge onto a beach.

Indeed this is a 100-million year old beach but unmistakable. The white sand is cemented into sandstone, but glimmers as pure as the day it was trod upon by who knows what manner of beasts. Smooth as travertine marble, it rises 20 feet vertically like rounded stairs. In swales of pinkish color one is reminded, this must be the Dakota. But I am transported to slick-rock places like Canyonlands or Zion, where similar looking colors and sands overwhelm the senses. Here it need not be so obtuse, for this is a private national monument.

The sun is now directly overhead. I am scratched and sweaty, and seeking relief. I know the stream originates in pastureland, and have seen dropping of horses and cows along its banks, which gives me pause to immerse myself. The water would be cool, but I’d be stirring up all manner of sediments, probably exposed to flesh-seeking larvae of numerous parasitic worms (biologists sometimes know too much) and probably as much an imposition on this idyllic bit of stream as a hippopotamus.

But off in a clump of bushes I hear a trickle. I investigate and find, scooped into the sandstone by previous rainstorms, a natural bathtub. The trickle comes directly from the sandstone, and it is cold and clear. The basin is five feet long, two feet wide, filled with a foot and a half of water and utterly surrounded by shrubs. Without hesitation, I doff my clothing and slip into it. The back of my head rests against the sandstone precisely under the spigot of the spring. I can easily substitute the silhouette of a pterosaur for the vulture high overhead. Closing my eyes I become hyperaware of my other senses and the place expands beyond my vision.

The Dakota formation is expanding to the west, far beneath my home in central Nebraska to the Rockies, north toward Lincoln where I played as a child in Robbers’ Cave, or the hill in Pioneers Park where a concrete Chief Red Cloud raised an eternal smoke signal, or the old Gretna Fish Hatchery where my family took long walks in the woods. The



A colorful variety of lichens, mosses and liverworts grow where shade allows on a sandstone surface. This complex organic patina may detain the action of erosion, but resistance is ultimately futile.

Dakota is part of all those places, part of my past, part of Eiseley’s past, part of deep time, part of the origin of flowers, part of the Age of Dinosaurs, and part of all things that will come to pass here until it is worn away or completely buried. What of our world will remain in 100 million years but those things we deposit in our coastlines that may chance to become a rock? Would a pop-top leave an impression as that flower did long ago? Would we find anything of our iron-age but rust? Could anyone ever guess why riverbed gravels were laid out in one-mile grids. Would any of those terrestrial artifacts remain? Lost in thought, I am rudely awakened from my reverie by voices, human voices. People are riding on horseback up the trail from which my discarded clothing is so plainly visible. I think I’ll just let them flow by too. ■

William Beachly is a biologist at Hastings College. His first NEBRASKALAND article, “A Park Called Wilderness,” appeared in 1981. Adrian Olivera is a photographer who lives in Lincoln.

Camera Traps

Proving to be a helpful addition to the photographer's toolbox

Text and photos by Michael Forsberg

In October 2006 I sat flustered on a wooded hillside at the Nature Conservancy's Niobrara Valley Preserve in the Nebraska Sandhills, trying to think through how to set up a spaghetti mess of cords, camera gear and electronic gadgetry spread out along a trail. After years of photographing wildlife with a camera in hand, I was trying a completely different approach: using "camera traps" to photograph wildlife without being physically present at all.

The trail that weaved its way up a shaded springbranch canyon along the

south side of the river valley served both as a hiking trail for visitors and a game trail for wildlife. It was a key travel corridor used by numerous species as they moved between the Sandhills prairie above and the Niobrara below. The goal was to capture as many creatures as possible that used this trail both day and night over the course of a fall season to show the diversity of wildlife in this rich natural community in northern Nebraska.

As the name implies, a camera trap is a camera married to a motion or heat sensitive device that captures a picture



In late-October, a large male bison moves up a woodland trail that connects the Niobrara River and the Sandhills prairie springbranch canyon. Over the course of two months between October and December, this camera trap on The Nature Conservancy's Niobrara Valley Preserve captured bison, coyotes, white-tailed deer and turkey.



of an animal as it moves through the frame. The camera is triggered automatically by the animal itself rather than by the photographer. Simple enough.

But technical wizardry is not my strong suit. Nor is setting up shots before they happen. So using custom-made, motion-sensitive remote camera setups that incorporated active infrared transmitters and receivers, digital SLR cameras, hardwired flashes, tent stakes, tree screws, ballheads, duct tape and cable ties, that needed to be connected to each other and work in synchrony to try and make successful images, scared the heck out of me.

At Audubon's Rowe Sanctuary along the Platte River, a camera trap placed along a game trail captured a photo of a white-tailed deer as a fawn in early June (right), and seemingly the same deer, nearly full grown (above), four months later in mid-October.





Camera traps are able to capture images of certain large animal species up close in intimate situations that otherwise would be impossible or dangerous. In the image above, a black bear saunters along a game trail near a prairie wetland at The Nature Conservancy's Pine Butte Swamp Preserve, where the mountains meet the plains along the Rocky Mountain Front near Choteau, Montana. Upper right - An adult female moose passes through the same trail on a different day, testament to the species richness of this particular location.



This camera trap system was the first of many systems eventually deployed in various locations from Montana to Texas as part of the photo work for a project that culminated in the book: *Great Plains – America's Lingering Wild*, published in 2009 by University of Chicago Press.

By December 2006, this particular camera trap yielded maybe 12 usable frames. Hundreds more were failures, some out of focus, others lit or poorly exposed, and some mysteriously showed nothing at all except an empty

stage. In one case I captured 200 images of snowflakes during a blizzard. In another instance, the camera captured a coyote stripping camo duct tape off one of the infrared units. I even had one image of a hiker I happened to know walking through the frame.

Later that winter a similar camera trap setup in the Pine Ridge yielded the first photographic evidence of mountain lions with cubs in Nebraska in nearly a century. Over the next few years until March 2009, the camera trap work would yield a photograph of a wolf

along the woodland edge of a tallgrass prairie in western Minnesota, photographs of grizzly and black bears, moose and elk out on the plains just east of the Rocky Mountain Front in Montana, mountain lions and mule deer in the Black Hills of South Dakota, and a bobcat just minutes from Lincoln, Nebraska.

Camera traps will never replace traditional wildlife photography, but they are firmly sealing their place as an effective tool, often in collaboration with wildlife researchers and others involved in conservation, to do what

George Shiras (see page 35 sidebar) said he set out to do long ago – to help reveal and record part of an otherwise hidden world, whether it be halfway around the world or right here in the prairies of Nebraska. ■

Editor's Note: In 2012, NEBRASKALand will run a photo spread by Forsberg of a nearly two-year camera trap effort set on a game trail next to the Platte River at the John J. Dinan property located at Audubon's Rowe Sanctuary.



At twilight, a large male grizzly bear, named "Maximus" by local wildlife biologists, moves along a game trail in an aspen stand at The Nature Conservancy's Pine Butte Swamp. Topping out at over 800 pounds at the time of this photo, Maximus was the second largest male grizzly bear recorded south of the Canadian border. In the summer of 2009, he was shot and killed illegally, but his legacy lives on in the matrix of wetlands, prairie and mountains these bears call home.



For five months, a camera trap set out for bobcats at Audubon's Spring Creek Prairie near Denton, Nebraska, yielded few results except for an occasional raccoon, rabbit and domestic cat. Finally, a bobcat appeared the last week the camera was in place.



Above, photographer Michael Forsberg tests his camera trap setup for mountain lions in the U.S. Forest Service's Black Elk Wilderness in the Black Hills of South Dakota. Below, a large male mountain lion moves through the frame two nights later.



To view and/or purchase Michael Forsberg's award-winning book, *Great Plains – America's Lingering Wild*, visit his website www.michaelforsberg.com.

The First Camera Traps

Using camera traps for wildlife dates back to George Shiras III, a renowned American field naturalist at the turn of the 20th century that many recognize as the father of wildlife photography.

In the 1890s Shiras developed a technique called "flashlight photography" to photograph animals at night. Using a canoe and flash, he was very successful at capturing images of moose and deer at night along shorelines, but soon discovered he needed to "develop a mechanism that would automatically photograph animals at night wherever they might be found."

To meet these requirements, wrote Edward Nelson, former chief of the U.S. Biological Survey, in the foreword to Shiras's two-volume book, *Hunting Wild Life With Camera and Flash Light*, published by National Geographic Society in 1906, "...Shiras resumed his experiments and perfected the additional mechanism by means of which a flashlight would be fired and the shutter of a concealed camera would be operated at the moment of greatest illumination, whenever the end of the baited cord was pulled or a taut string stretched across a trail was tripped by a passing animal.

"So successful has been this form of photographic art that it has had an extraordinary popularity. It is in use in all parts of the world. The most intense interest

attaches to these night-time photographs; for they reveal the activities of subjects that were formerly so well hidden by the darkness that they were almost a sealed book."

Shiras' work was so impressive that he was even commissioned by the U.S. government to



"Beaver Cutting Down a Tree" From *Hunting Wild Life With Camera And Flashlight*, 1935.

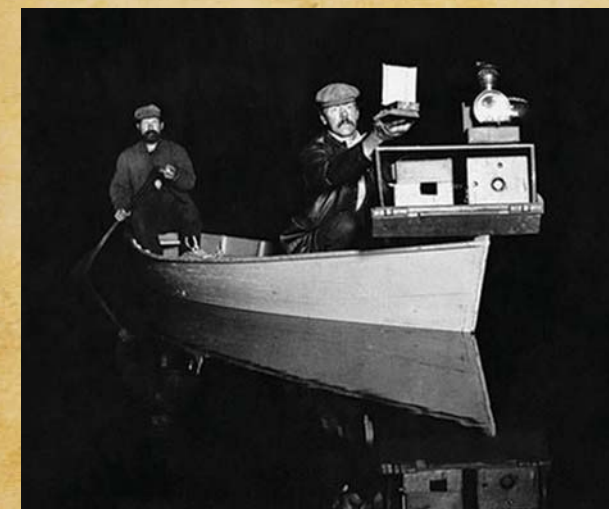


The July 1906 issue of *National Geographic* featured its first ever wildlife photographs, which included this image.

provide a set of photographic enlargements for the World Exposition in Paris in 1900.

Nearly a century later, Shiras would likely marvel at the technology and level of imagery that is being made today by photographers using camera traps around the world.

In the last decade, camera trap images have been brought to the forefront with the groundbreaking work of *National Geographic* photographers such as Nick Nichols in the sprawling Ndoki wilderness in central Africa, Steve Winters's work with big cats, including snow leopards in the Himalayas, Joel Sartore's work about stymied animal movements on migration. The list goes on. These photographers and others are producing important and artful images that are not only beautiful, but often offer a uniquely intimate glimpse of seldom seen creatures in the context of the habitat around them, a view that once could only be crafted in a painting. Today such images have often proven key levers in conservation.



George Shiras III (1859-1942) shown here with his guide, John Hammer.

Fallow Deer

Their Life and Times in Nebraska

By Jon Farrar

The stocking of Eurasian fallow deer in the Beaver Creek Valley in 1939 and 1940 was the beginning of a now seemingly aberrant episode in Nebraska's big game history. It set in motion the only time hunting a free-ranging, exotic, big game species was legal in the state.

"Fallow deer were released in Nebraska in 1939 (20 head) and 1940 (53 head) on the Hall Ranch, 10 mi. NW Petersburg, the animals being supplied by the Lincoln City Park Department," J. Knox Jones, Jr. wrote in *Distribution and Taxonomy of Mammals of Nebraska*, published in 1964. "The species thrived, reproduced, and extended its distribution from the point of original release; now fallow deer occur throughout the Beaver Creek Valley and in adjacent parts of the Cedar Creek Valley and the lower Loup Valley."

"Because of the fine sporting qualities of the fallow deer, *Dama dama* Linneus, it has been introduced in many parts of the world," Robert L. Packard, State Biological Survey, University of Kansas, wrote in the August 1955 quarterly of the *Journal of Mammalogy*. Packard noted the release point in Nebraska was "...in the middle of the

Beaver River [Creek] Valley, which is on the southeastern edge of the Nebraska sandhills in Boone County. In this valley there are extensive hay fields, good willow growths, and some corn fields."

"Ray Hall, a rancher from the Beaver Valley west of Petersburg, knew of the large numbers [of fallow deer in the Lincoln park] and was instrumental in obtaining 20 head to release on the open range," Mary Alice Dwyer, who lives on a ranch in the Beaver Creek Valley about 15 miles west of Petersburg, wrote in an October 23, 1985 *The Elgin Review* article. "The following year, Mr. Hall and some of the other ranchers went to Lincoln in their pickups or trucks and brought an additional 53 head back to the valley. Some of these were freed at the same Hall Ranch, while others were let loose about six miles further west along the creek bed in Wheeler County. It appeared that the deer did spread rapidly during the first years after release." Although none of the animals were released on the nearby Mignery Ranch, Dwyer wrote, "...the fallow deer seemed to prefer the habitat there to the original release sites and it was soon where most were to concentrate."

Why Exotic Deer?

To put the stocking of fallow deer in perspective, one needs to know something of the status of native deer species in the state at the time the releases were made, and how that contributed to the introduction of an exotic big game species.

In 1901, when Nebraska's first comprehensive game laws were established by the legislature, Chief Deputy Simpkins of the newly created Game and Fish Commission estimated

there were "about 50" deer remaining in the state, their location as follows: eight in Cherry County, a "few" in Deuel County, about six in Lincoln County, and 12 to 15 in Thomas County. That same legislative session, ostensibly in an effort to provide the remaining deer with some measure of protection, established the following regulations: "The open season for deer having horns and antelopes having horns shall begin August 15th and end November 15th next ensuing....and no person shall take, kill or have in possession in any one season more than one deer and one antelope; or instead of one deer and one antelope, he may either have two deer or two antelope." The 1899 statutes had allowed deer hunting during November and December with no limit on the number taken.

Not until 1907 did the Nebraska Legislature provide complete protection for deer. By the end of 1908, Game and Fish Commission Chief Warden George L. Carter reported: "The Dismal river herd of deer has increased until there is now about 100 animals in Thomas and adjoining counties," and "they were also found as far south as Lincoln county...." During the 1920s and 1930s, deer slowly began to increase in abundance and range.

That deer were so slow to repopulate Nebraska on their own spawned attempts to speed the process along. "The Nebraska Bureau of Game and Fish has placed an order for ten deer for fall delivery," the July 1927 issue of *Outdoor Nebraska* reported. "These are secured from the Federal Government and are trapped from a forest reserve in Utah. The cost to the State of Nebraska will be around \$40 per animals. It is expected to put the deer on the two forest reserves in Nebraska where there



Fallow deer are native to the Mediterranean region of Eurasia but introduced through Europe during the time of the Roman Empire, and first brought to the U.S. in about 1900.



SHUTTERSTOCK

SHUTTERSTOCK



PHOTO BY JON FARRAR

Jim Miller shows a fallow deer mount that came with the business he bought 39 years ago near the headwaters of Beaver Creek. Food, drink and tire repairs are available at Miller's Corner, formerly called Four Corners, about seven miles north of Bartlett.

already is a small herd.” Whether that stocking ever occurred is unknown.

The January 1933 issue of *Outdoor Nebraska* reported mule deer were beginning to return to the Pine Ridge in northwestern Nebraska, and the January 1934 issue reported occasional sightings of deer (whether white-tailed or mule was not mentioned) in several northeastern counties. A survey of deer and pronghorns in Nebraska reported in the Autumn 1938 issue estimated there were 1,675 deer in the state, mostly in the Pine Ridge and Wildcat Hills escarpments in the Panhandle, and along the Niobrara River in the tier of northern counties. By the autumn of 1940, deer were plentiful enough in northwestern Nebraska that signs were being posted along highways to warn motorists of deer crossings, and there was talk of a deer hunting season in that region “in the not too distant future.” But no one, not even the Commission’s game biologists, expected deer to one day populate the

entire state.

Combine the failure of native deer to quickly recolonize the state on their own, even with more than 30 years of protection from the gun, with the Commission’s history of introducing exotic game birds to replace native species seemingly incapable of coexisting with agriculture, and add that to James Agar, Lincoln Park Department superintendent, who had European fallow deer breeding themselves out of house and home at Pioneer Park, and the stage was set for the establishment of a wild herd of fallow deer in the Beaver Creek Valley. Oddly enough, the Nebraska Game, Forestation and Parks Commission does not appear to have played an active role in transplanting the fallow deer, as there is no mention of it in Commission records, and this in a time when annual reports gave exact counts of the number of pheasants raised on game farms and stocked, or bullheads seined from Sandhill lakes and stocked

in eastern waters. It would seem that permission would have been required for the stocking of exotic game animals in the state.

Hunting Seasons

Nebraska’s first archery deer hunting season was held in 1955 and only open during the month of October in Burt, Douglas, Thurston and Washington counties where cropping back the population was deemed necessary. One hundred and seventy-three permits were issued and seven deer reported killed. The following year, more of the state was open to archery deer hunters, and fallow deer became legal game for archers. That year, the statewide kill of deer by archers was 28, of which eight were fallow deer taken in Wheeler County. The implication of those numbers is that either archer hunters concentrated on hunting fallow deer because they were an exotic species, or fallow deer were easier to approach

within bow-and-arrow range. Fallow deer remained legal game only for archers until 1963, when they also could be shot during the firearm deer season.

From the time of their release until Commission biologist J. Henry Sather did a cursory survey of fallow deer in 1946 that included landowner interviews, there are no records of how the fallow deer in the Beaver Valley fared. F.A. Matson in Boone County, however, reported to Sather that fallow deer: “Had ruined his orchard and that a herd of thirty stayed on the ranch the year round.” Clearly the fallow deer were reproducing and spreading. Fallow deer are gregarious – typically gathering into herds – so damage to cropland, haystacks and orchards tended to be more severe than with native deer species.

Commission biologist Raymond Linder conducted a more thorough survey in the summer and autumn of 1955, and also talked with ranchers and farmers in an attempt to determine the fallow deer’s range in the state and estimate the population size. Linder described the central Beaver Creek Valley, where the animals were released and where most remained, in his 1956 report, “Distribution of Fallow Deer in Central Nebraska.” Linder wrote:

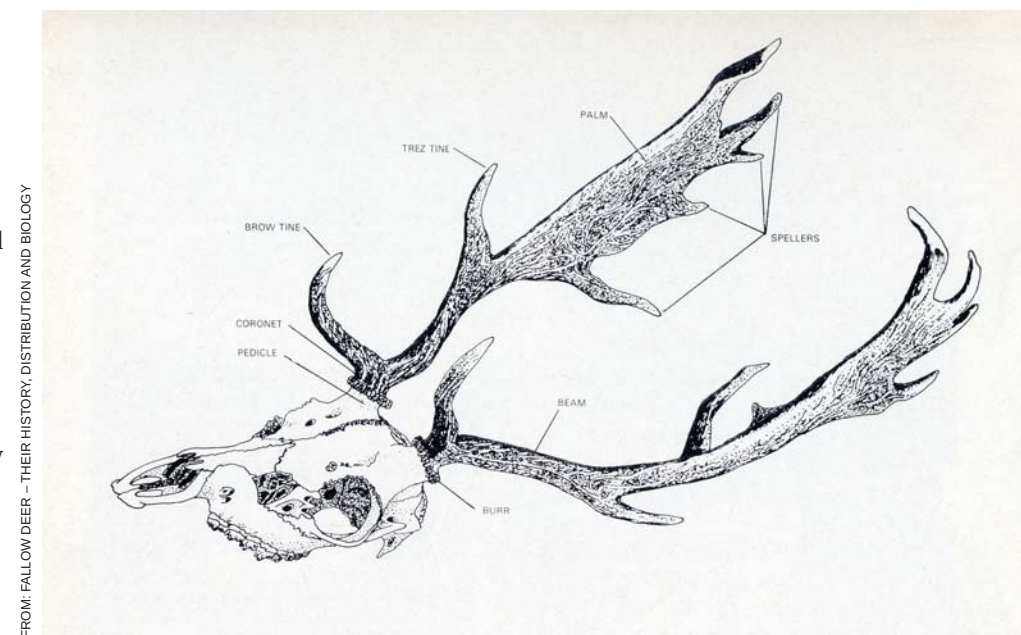
“The Beaver Valley in which the main herd concentrated is in most places not more than 2 miles wide and is bordered by sandhills on both sides. The creek bank has a heavy growth of shrubs and the remainder of the area is meadow that is used for hay. There are numerous groves of cottonwood trees scattered through the length of the Valley. At the eastern edge of the major range near Petersburg, land use changes quite abruptly from grazing and hay to crop cultivation. Their major range extends westward to the headwaters of Beaver Creek in the vicinity of Cummingsville.” Cummingsville was the name of a post office and store once located near the junction of U.S. Highway 281 and Nebraska Highway 70, seven miles north of Bartlett and near the headwaters of Beaver Creek. In recent times, the intersection has been better known as Miller’s Corner by locals.

Linder reported more than half of the

ranchers who lived in the Beaver Valley between Petersburg and Cummingsville reported “white deer” on their land before 1945. All of the fallow deer released were of the white color phase and once in the wild they continued to breed true to that color. Linder wrote there were reports of fallow deer near Norfolk, Chambers, Loup City, Ord, Clearwater and in the Platte River Valley in Hall County but “the validity of these sight records is questionable, as in each case the report is hearsay.” Linder concluded his report by recommending there be no further study of fallow deer.

Sometime during the 1950s there was

entire state was open to archers, of the 80 deer killed, five were fallow deer and all were bucks. The following year, six of the 221 deer killed by archers were fallow deer, of which five were bucks. Fallow deer remained legal game only for Nebraska archers, the object seeming to be to reduce the number of fallow deer to a point they were not a problem for several ranchers where they concentrated, but not significantly reduce their numbers. Fallow deer were taken by archers only in Wheeler, Antelope and Boone counties. There was talk fallow deer were “semi-tame” and so easier for hunters to approach, but hunter surveys



FROM: FALLOW DEER – THEIR HISTORY, DISTRIBUTION AND BIOLOGY

Fallow deer antlers are distinctive. On mature bucks there are two slender brow tines, two trez tines farther up the beam, and each side terminates in broad, palmated shovels.

a second “stocking” of fallow deer in Nebraska when 17 to 20 fallow deer escaped or were released from a confined herd at the Fairbury city park. Those deer were occasionally sighted for a number of years, usually along the Blue River, and then vanished.

While the Commission seemed to have scant interest in the fallow deer, archery hunters had a disproportionate interest in them judging from the percentage of fallow deer killed relative to the significantly greater abundance of white-tailed and mule deer. It was apparent they were viewed as trophy animals. Archery fallow deer kills were almost entirely bucks. During the 1957 archery deer season, the first year the

from that time showed the average distances at which hunters estimated they made kills were comparable to those reported for mule deer and white-tailed deer.

Little changed from the late-1950s into the mid-1960s, although the percentage of fallow deer taken by archery hunters continued to shrink as white-tailed and mule deer became more plentiful and widespread. During the 1959 season only two fallow deer were among the total of 223 killed by archers, one in Wheeler County and one in Boone County. In 1960 there were seven fallow deer in the total of 221 killed by archers; five of 331 in 1961; one of 316 in 1962; and three of

413 in 1963. Firearm hunting of fallow deer was allowed for the first time in 1963 and nine animals were shot. Fallow deer were legal game only for archers again during the 1964 season, when nine does and four bucks were taken.

A 1966 aerial winter survey in the Beaver Creek Valley by a Commission biologist found 124 fallow deer – seven bucks, 106 does and 11 fawns. Of those counted, 46 were near the Hall ranch in Boone County and 78 on or near the Mignery ranch in Wheeler County. Of the seven adult males observed, only two had large palmate antlers typical of mature bucks. Winter aerial counts of fallow deer had been conducted since 1958. In that first year, 105 fallow deer were counted. In 1959, 157 were counted, the highest ever reported by a game commission survey.

Fallow deer were again legal game during the firearm season in 1966. Landowners where fallow deer concentrated, and the Commission, wanted the number of fallow deer reduced, if not entirely eliminated. The “Surveys and Management of Deer” work plan report for March 1966 through February 1967 stated: “Fallow deer have decreased in numbers for the past several years. Annual production has always been limited and even with complete protection [prior to the first archery season in 1956] the fallow deer have not responded to management. They are not a particularly desirable deer and the many problems associated with them have justified herd reduction.”

During the 1966 firearm season, 34 fallow deer were taken by hunters, 23 from Wheeler County and 11 from Boone County. Nine of the fallow deer were adult bucks. A March 1967 aerial survey of the Beaver Creek Valley by a game commission biologist reported 64 fallow deer and stated: “It is the opinion of the observer that a total count of fallow deer occupying the Beaver Valley was obtained.” Annual winter aerial surveys by Commission

biologists from 1959 through 1969 showed a plummeting decline.

Going, Going, Gone

Most landowners in the Beaver Creek Valley wanted the fallow deer gone because they were a nuisance, competing with livestock for forage.



PHOTO COURTESY OF CHARLES CARHART

Charles Carhart of Wayne with a fallow deer he killed with a bow and arrow in 1962 in the Beaver Creek Valley.

Unlike other species of deer that are browsers, fallow deer are principally grazers, feeding on grasses, sedges and forbs. The fallow deer’s feeding habits put them in direct competition with cattle, and they were fond of haystacks during the winter months. Fallow deer are herd animals by nature, which no doubt concentrated them on preferred grounds along Beaver Creek. For much of the year, adult bucks formed bachelor groups and lived apart from the doe herds comprised of adult females, yearlings and fawns. The bucks joined the doe herds during the rutting season.

“The ranchers and the Game and Parks Commission now agree that had

a hunting season been initiated sooner, the deer would have been made wild, thus spreading them throughout a larger area,” Dwyer wrote in her 1985 newspaper article. “As it was, no season was placed on them until 1956 for archery only. So for about 16 years, they were in a sense domesticated; and after they increased in numbers, they became a nuisance for the ranchers, ruining hay stacks, orchards and other trees. They also became a traffic hazard, as Jim Miller recalls. When he drove the milk truck in the area, he would have to stop, get out and practically kick them out of the way before he could proceed down the road or into a driveway.”

Fallow deer remained legal game until 1971 when the Nebraska Game and Parks Board of Commissioners again provided them protection from hunting in response to Beaver Valley rancher’s requests. By then, the continued existence of fallow deer in the state had become a moot point. Even though again protected from hunting, the Beaver Creek Valley fallow deer herds steadily dwindled. Some said it was because there were not enough bucks to breed all the does, others that fallow deer had never been that prolific in the wild and were inbred, some that the animals were diseased.

The game commission feared the fallow deer might introduce disease into the whitetails and mule deer that were just beginning to make a strong comeback. Blood testing by Commission biologists in the early-1960s revealed the fallow deer carried several diseases, one of which causes abortions in deer and cattle.

Now retired conservation officer Robert Kelly, who was stationed at Albion in 1969, estimated there might have been as many as 100 fallow deer left at that time. A September survey that year could find only 24 – 14 in Boone County and 10 in Wheeler County. The Commission’s “Survey and Management of Deer” report for the period March 1969 through February 1970 stated: “Production has

European Import

Fallow deer are native to Eurasia but were introduced throughout much of Europe during the time of the Roman Empire. They have long been popular game animals and deer park residents in England. Fallow deer were probably first brought to the United States in Kentucky in about 1900, according to Donald and Norma Chapman in their 1975 book, *Fallow Deer – Their history, distribution and biology*. At the time their book was published, the Chapmans speculated fallow deer were one of the most widely distributed species of deer in the world, being found in 35 countries.

Buck fallow deer stand about 37 inches at the shoulder and weigh from 110 to 170 pounds. Does are slightly smaller. Fallow deer show more variation in coat color than any other species of deer, certainly in part because of the many generations raised in captivity. The Chapmans, and most other authorities, recognize four standard colors. The “common colour,” and perhaps the original color of animals in the wild, is a rich brown over the head, upper side of the neck, back, flanks and the upper, outer sides of the legs. The brown is “liberally splattered with white spots on the back and upper flanks, with fewer on the neck and none on the head or legs.” What they call the “menil color” is a pale version of the above.



THINKSTOCK

The most common color phase of fallow deer is a chestnut brown with white spots. Those released in Nebraska were white.

Nearly pure black fallow deer are fairly common. The fourth fallow deer color is white. All of the deer from Pioneer Park released in the Beaver Creek Valley in 1939 and 1940 were white. “The white variety is not uncommon although one would expect such a conspicuous animal to be at a disadvantage in the wild,” the Chapmans wrote. “Probably it first arose in park-bred herds. This variety must not be confused with total albinism, which is rare in fallow, for these white deer, unlike albinos, have normal pigmentation of the eyes, although the hooves have less pigments and are more yellow-orange than the usual black or tawny colour and the nose is pale.”

always been poor and the population continues to decline. The remaining fallow deer provide practically no hunter interest and area residents have not expressed any concern over the continuing decline.”

In 1971, three fallow deer were reported killed by hunters in Boone County. After that, fallow deer ceased to exist in Commission deer harvest records. Kelly said that by the 1980s only a handful of barren old does remained. Dwyer wrote that in 1985 there were probably less than 20 left. Likely the last fallow deer in the Beaver River Valley died in the mid-1990s according to Kelly. There have been reports of white fallow deer west of Petersburg in recent years, but locals say they are animals released from captivity by a ranch hand before he moved to another state.

But the fallow deer saga was not

finished in Nebraska. The species was introduced to the United States for display in deer parks and zoos, and released on sites where they were contained for paid hunts. In recent years, several “domestic cervine animal facilities” in Nebraska offered fallow deer hunts. The concerns biologists had years ago about fallow deer introducing disease to native deer proved to be justified. Fallow deer were found to be carriers of bovine tuberculosis at one of these facilities. All of the animals were killed and destroyed, in addition to 42 wild white-tailed deer near that site but found not to carry the disease. In 2008, an exotic species of deer lice, presumed originating with captive fallow deer herds, was found on Panhandle mule deer, and the same north-central county where tuberculosis was found in captive fallow deer. These chewing lice trigger an allergic reaction. Infected

animals scratch and rub to relieve the itching, rubbing off hair. Eventually, without winter coats for protection, the deer may become sick and die from hypothermia.

Once, exotic species were seen as the salvation to replace vanishing native species. Inevitably, nearly all such introductions failed, and in some cases were detrimental as they introduced disease or out-competed and replaced native species. European starlings compete with native woodpeckers for nesting cavities, and biting Japanese ladybugs seem intent on conquering North America. If there is a lesson to be learned from decades of man’s tinkering with natural environments, and the fauna and flora that evolved to prosper in them, including Nebraska’s experiment with fallow deer, it is that true salvation comes with preserving what was here in the beginning. ■

The Phenomenal Pheasant

Known for their beauty, this gamebird's biology is a fascinating work of art.

By Lonnie Shafer

Nebraska has been involved with the ring-necked pheasant for 100 years. In 1911 the Nebraska Legislature appropriated funds for the first time to rear and release pheasants. As a result of the work done between 1911 and 1927 by the Nebraska Game and Fish Commission, forerunner to the current Nebraska Game and Parks Commission, Nebraska held its first pheasant hunting season in 1927. This year, Nebraska will hold its 85th consecutive pheasant hunting season.

What makes this Asian transplant so remarkable? Check out the following phenomenal facts.

- Herbst's corpuscles, nerve endings, are pressure-sensitive pads on their feet that help pheasants feel ground vibrations. Between these pads and hearing, pheasants can sense loud noises from hundreds of miles away.

- During World War I, pheasants were enlisted to assist the war effort – serving with particular distinction by giving early warning. Not only were pheasants alert with their sharp ears, but also they detected the slightest vibrations through the ground, such as the footfall of distant armies or the pounding of artillery. On January 24, 1915, a flock of pheasants reportedly shrieked themselves hoarse in raising alarm over the naval battle at Dogger Bank, 216 miles away. In addition, pheasants are reported to have responded to cannon fire some 320 miles away during World War I – explosions inaudible to the human ear.

Human voices also alert birds, particularly on dry, calm days. The first maxim of successful pheasant hunting

could well be “make no more noise than necessary.”

- During a blizzard a pheasant may stay on a roost for several days without



eating.

- Using their feet and wings, pheasants can dig through 12 inches of snow to find food.

- The pheasant rooster is a multicolored wonder with a mottled feather pattern that provides excellent camouflage for hiding from predators. Hen pheasants are well camouflaged and adapted to be inconspicuous while incubating eggs. A hen will spend 23 hours a day on the nest for 23 consecutive days.

- The pheasant rooster is polygamous, meaning he will mate

with several hens. Game farm experiments have proved a single rooster is capable of successfully fertilizing the eggs of 25 hens.

- One mating between a hen and rooster will produce fertile eggs for an average of 22 days.

- Pheasant chicks are precocial, meaning they are capable of walking and eating soon after hatching.

- A chick is capable of short flights by the end of one week.

- The pheasant is an omnivore, eating both insect and vegetable matter. This allows survival on many foodstuffs. Pheasants will eat more than 500 different food items.

- A full-feathered rooster pheasant with a wingspan of 32 inches can burst into flight and reach speeds up to 45 miles per hour.

- At take-off a pheasant's wings will be beating three times per second.

- With mild weather and proper habitat, a pheasant population can more than double in a year.

- A cock pheasant chick starts out at one ounce at hatching and increases his

weight 40 times in four months to 2½ pounds. During this time period the young pheasant will also grow two sets of feathers.

- To escape hunters, cock pheasants employ three tactics to survive: hide, run or fly. ■

*Lonnie Shafer collected these facts from various sources while researching information for the publication **Shafer's Nebraska Pheasant Hunting Almanac**. It is available by emailing Shafer at Exeter.shafer@yahoo.com or calling (402) 266-4401.*

PHOTO BY RICK RASMUSSEN

Baby Snakes

Early survival isn't easy for these reptiles.

By Dan Fogell

Some hatch from eggs. Some are born live. However they enter into the world, they are equipped with all the tools necessary for survival – except size. August is the first month of “baby snake season,” which continues through October. With no skills and a lot of instinct, newborn serpents have one objective: stay alive. Snakes are already handicapped, lacking the arms and legs that other land animals have. But when you add small size, no protection from parents and, in most cases, only one method of defense – crawling away, chances of survival are slim. In fact, research has shown that only about 10 percent of newborn snakes survive their first year of life.

Most baby snakes in Nebraska hatch from eggs that were laid in June. Mother snakes have very few maternal instincts, simply abandoning the eggs after finding a suitable incubation site. Snake eggs are very porous and can both absorb and leak water. Since water is an important resource for developing snakes, leaking it is a bad thing, so snakes lay their eggs in humid places. Temperature has a lot to do with how fast the snake embryo develops, as well as how fast the eggs hatch. The warmer the temperature, the

sooner the eggs will hatch; however, the sooner the eggs hatch, the smaller the baby snakes will be. The optimal temperature range for snake eggs to hatch is between 78 and 84 degrees Fahrenheit, but of course snakes do not use thermometers, so instinct plays a large role in finding a good site. Hay bales, mammal burrows, tree stumps, beneath rocks – these are



A prairie rattlesnake will stay with her newborn babies for up to a week before leaving them on their own.

all places where snakes will lay eggs. The amount of time it takes to hatch varies with species. Some snakes, such as the smooth green snake, lay eggs that can hatch within one to two weeks. Others may take a month or so, like the ringneck snake. Larger snakes like bullsnakes, king snakes and rat snakes, take about 60-70 days to hatch.

But not all of Nebraska's snakes lay eggs. Water snakes, garter snakes and the venomous



A baby brown snake is born live and is small enough to coil up on a nickel.

rattlesnakes and copperheads all give birth to live baby snakes. Rattlesnakes and copperheads actually breed during late summer but don't give birth until the following fall – over one year later – and mothers often stay with their newborns for a week or so before leaving them to fend for themselves. All the others breed early in spring and have babies in August and September.

Regardless of how they enter the world, baby snakes are just small versions of their parents. They don't have a larval stage like frogs and salamanders do, and they don't receive parental care like birds and mammals do. In fact, some snakes – given the chance – will actually eat their babies. Baby snakes must defend themselves against predators, find

and figure out how to capture their own food, and find shelter – both immediate and for the cold winter months to come. And they do it all alone because snakes are not very social creatures. There is an enormous learning curve when you're a baby snake, but those that survive will grow up, find mates and pass on those successful traits to their own babies someday – even though they won't stick around to see them succeed. ■

Dan Fogell teaches biology and zoology at Southeast Community College in Lincoln. He has appeared in NEBRASKALAND Magazine since 2000.



PHOTOS BY DAN FOGELL

A ringneck snake hatching from its egg may take up to two days to finally come out.

Knife Sharpening

How to go from butter knife to scalpel.

By Matt Houska



in more durable cutting edges.

A general rule is the duller the blade, the coarser the stone to start with. If the knife is extremely dull, consider a diamond stone to speed the initial grinding. Use a felt tip marker to color the factory bevel (see figures 2, 3 and 4). This allows you to see your new grind and know when the new bevel is ground to the

Like many outdoor enthusiasts, I have a drawer filled with an assortment of sharpeners and stones for my knives and broadhead arrow points. Primarily a bowhunter, my quest is to find the best way to obtain a razor edge on my hunting broadheads. I admit, I am somewhat sharpening challenged and lack the skill to sharpen freehand on a stone.

The common mistake I make is an inconsistent edge angle. A friend recommended that I try a rod-guided system (see figure 1). It uses a rod to set the angle to give a consistent edge. Once set, it is virtually impossible to grind the knife at a different angle. There are several companies that make this type of sharpener – KME, Gatco and Lansky are a few.

To begin, practice with an unimportant knife to get the hang of it before switching to your favorite hunting knife handed down from grandpa. Set the angle to grind the initial bevel. You can either set the angle to match the existing bevel or regrind the bevel to your liking. Regrinding the bevel to a different angle takes a little more work and time. I prefer a 25-degree angle for my primary bevel and then increase the angle to 30 degrees for my final touch up. Keep in mind that some knives, such as fillet knives, may have a low factory angle, anywhere from 5 to 15 degrees. Sharpening at higher angles will result

edge.

Grind the bevel with a coarse stone until the entire blade length has the same consistent angle to the edge and you can feel a light burr on the underside of the blade. Flip the knife and work the other side equally. Repeat this process at the same angle with progressively finer grit stones (see figure 5) until the bevel has a polished look. Usually a medium grit then a fine grit is adequate. I like the feel of Arkansas stones. The stones can be used dry, or lubricated with oil or water. Just keep them clean.

Switch to your finest grit stone. I use a hard Arkansas stone for this. Increase the angle 5 degrees from your grind. The increased angle means the stone will only be in contact with the cutting edge. Do a light stroke, going into the blade, then flip the knife and repeat this several times. Make sure to do only one light stroke on a side at a time, then flip. This gives you a multi-bevel or duplex edge. The advantage is an extremely sharp edge that maintains its durability.

Last, take the knife and strop the blade using clean leather. Cardboard also makes a cheap alternative. Stropping is taking the final microscopic burrs off the edge. When stropping, be sure to move the blade away from the edge (see figure 6). Think of it as going opposite to cutting the leather.

With a good quality knife you should be able to get a shaving-sharp edge that fits the definition of “scary sharp.” ■



Set the blade parallel to the holding clamps and mark with a felt-tipped pen.



Begin grinding with coarse stone along the entire length of blade to set the angle.



The pen-marked edge will show the areas that need additional grinding.



Using progressively finer grit stones, repeat the process for a polished edge.



The final step is to strop the blade using leather or cardboard.

PHOTOS BY MATT HOUSKA

Mari Sandoz: Pioneer Writing Pioneer

Rugged, honest writing at the heart of this Nebraska native's work.

By Erica Hengelfelt

Nebraska author Mari Sandoz was born on Mirage Flats near Hay Springs, Nebraska, on May 11, 1896. Mari and her five younger siblings were raised on the Great Plains by Swiss immigrant parents, Mary and Jules Sandoz.

Many people associate Sandoz's early life with various forms of abuse. It is known that her father was physically and emotionally abusive to his wife, children and farm animals. Jules belonged to a wealthy Swiss family, but found it difficult to maintain strong finances after immigrating to America.

“The family was by no means wealthy, and Jules tried many different ways to make a living for his family,” said Sarah Polak, director of the Mari Sandoz High Plains Heritage Center in Chadron. “Most of these plans involved the manual labor of his wife and children, which made Mari's childhood quite rough as well.”

In the midst of this harsh upbringing, the young Sandoz was fond of storytelling and wrote original stories in her free time. At just 11 years old, she published her first piece, called *The Broken Promise*, in the Omaha Sunday News-Junior Edition.

“It is not a masterpiece of American literature, but it is a simple story of a boy, a witch, a fairy, a princess and a broken promise,” said Polak.

Surprisingly, Sandoz only received the equivalent of an eighth grade education and much of what she

learned about writing was self-taught. However, she was able to attend the University of Nebraska-Lincoln as a “Special Student.” Financial strain and lack of a high school diploma kept her from enrolling for courses, but Sandoz was allowed to take one writing class at a time, and if she was successful, she was able to take another. The university is the place where Sandoz was able to develop her craft, said Polak.

Sandoz was also part of a writing group called “The Quill,” which included members such as Bess Streeter Aldrich, Eleanor Hinman and Mignon Eberhart. The group regularly met at the old Cornhusker Hotel in Lincoln, where they were able to share their work and various accomplishments.

Nearing her father's death, Sandoz began to write his biography, which resulted in the manuscript for *Old Jules*, one of Sandoz's most well-known literary contributions. Sandoz's representation of pioneer life in *Old Jules* was brutally realistic and sparked much controversy.

“It shows the natural beauty of western Nebraska, while looking at the human drama that plays out in time and place that strips people down to who they



The Mari Sandoz High Plains Heritage Center is located on the Chadron State College campus and features memorabilia chronicling Sandoz's life and writing career.

truly are in an attempt to make a life for themselves in an unforgiving landscape,” said Polak.

Sandoz became one of the first American authors to empathize with the struggles of Native Americans, most notably in the biography *Crazy Horse*. Other writers of the period portrayed the Native American population as heartless, violent and savage, which Sandoz strove to correct. Her biography of the chief depicted Crazy Horse as an honest man dedicated to his people and to challenging the theft of sacred lands.

In 2002, the Mari Sandoz High Plains Heritage Center opened at Chadron State College to honor this native Nebraskan author. Almost three million dollars was raised for this project, which now houses Sandoz's manuscripts, short stories and even select personal belongings. The museum aims to serve as a window into true pioneer life on the High Plains.

The museum is open Monday-Saturday, and admission is free of charge. The public can browse through the collection of Sandoz-related material, surrounding gardens and pioneer cattle ranching exhibits. ■

The Mari Sandoz Heritage Society will host its annual conference celebrating the author on October 14, 2011. For registration information, please visit marisandoz.org.



PHOTOS COURTESY OF HIGH PLAINS HERITAGE CENTER

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◀ The results of a circa 1965 Sunday morning pheasant hunt near Aurora. Saturdays were for recuperating from Friday night football games. From the left is Pat Darbro (a high school teacher/coach in Bozeman, Montana), Dr. Gary Penner (a senior physician with the U.S. Foreign Service who lives in the Washington, D.C. area), and Pat's brother Tom Darbro (who is the president of Pinnacle Bank in Aurora). Notice the lack of hunting attire and accessories. We got up and went hunting and there was no shortage of birds. Those days are gone but not forgotten.

— Mike Darbro, Central City, Nebraska



▲ This picture was taken in the early 1970s. I don't know the exact year. The fish are crappie and were taken at a private lake near Kearney. Pictured left to right are Larry Roper, Perry Roper, John Steffens and myself (Ron Cox). Larry was the former Johnson Lake superintendent. He died in a tragic accident on the Tri County Canal west of Johnson Lake and near waterfowl blinds the four of us hunted during the '70s and '80s.

— Ron Cox, Kearney, Nebraska



◀ Enclosed you will find a clipping from the Scottsbluff Star Herald of my wife Conny and myself with a fine buck she harvested.

The headline reads "One Buck for Fiancée; Nothing For Fiancé in Area Deer Hunt." This hunt was the 1969 deer season. Conny harvested three deer before I harvested one (1969, 1970 and 1971). I quit letting her shoot first! At least we had deer to eat.

— Lynn F. Herdt, Scottsbluff, Nebraska



▲ This picture was taken in Alliance on the opening day of pheasant season in 1967. Pictured are Gary Bussinger of Bassett and his dog, Rosie; Kenny Bussinger, also of Bassett, and his dog, Lady; John Klatt of Ainsworth; and my father-in-law, Gerald Bussinger of Alliance and his dog, Jiggs. All four got their limit of roosters hunting north of Alliance. The area still remains rich in roosters.

— Steve Merrill, Rapid City, South Dakota



▲ Taken in the 1950s, pictured left to right are two unknown gentlemen; my dad, John Dice; my uncles, Art Barrack, Joe Barrack and Jess Johnson; and Lucky, uncle Art's dog.

Story goes they were pheasant hunting up by Schuyler when a huge flock of snow geese started wind-milling into a nearby cornfield.

My dad worked at the Falstaff brewery in Omaha. I am sure the geese ended up at the end of the year game feed hosted by the brewery.

— John Dice, Omaha, 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.

Olympics

Offering state-of-the-art winters and summers is just one selling point.

By Roger Welsch

Some years ago New York City was putting on a big hustle to bring a world's fair to that fair city, but there were problems. I thought I would be a good neighbor and write then-Mayor Ed Koch offering our assistance from my town of Dannebrog. My pitch was that, yes, New York City has a name and some decent restaurants (as does Dannebrog...try Tom's pizza any Thursday evening) but there were concerns (and rightfully so) about whether New York's infrastructure could handle the millions of people one can expect for an international event like a world exposition. So I thought maybe the Big Apple could team up with the Big Ebelskiver and we could put on the Fair together: they have the name...we have the parking.

Well, I got a snippy letter from Ed Koch's office saying curtly, no thanks, "New York considers itself more in the league of Tokyo or Paris than [probably said with a voice that suggesting the writer just stepped in a fresh pile of doggie doo] Dann—e—broog." We were stunned, of course, that our generous offer had been turned down, and not just a little miffed. What the fancydancypantsies in New York didn't realize, however, is that two can play the snobbery game and we immediately fired back another letter ... this time, by airmail!... announcing that Lyle and Dora Jean Fries of suburban Dannebrog had planned to go to New York that year for a summer vacation, but on the basis of the nasty way Crotchety Koch had treated us, they decided not to go. And Lyle and Dora Jean were big eaters. That's right — we launched an economic embargo. There's not a doubt in my mind that somewhere in the calculations of that year's New York tourist revenues there was a major dip in the returns ... and that was Lyle and Dora Jean.

Okay, here we are again in pretty much the same situation but with the Olympics. If the International Olympic Committee learned anything from the 2010 Winter Olympics in Vancouver, it would have been that a big consideration, maybe the first consideration, should be that the proposed venue for the games have a winter. Obviously someone forgot to check that little detail for Vancouver since, if you'll recall, the contestants did their skiing in 70-degree temperatures and driving rain.

Well, Nebraska has winter. In fact, an industrial-grade winter. During the winter of 2010-2011 the ice dancing and

hockey events could have been done between our house and the machine shed. I tested that theory and I did some Super Axle Triple Klutzes without even wearing skates. Okay, we don't have mountains, jumps or half-tubes but I can imagine tornado boarding and cow tipping. And how about the stone sliding "curling" events they did for fifteen or sixteen days in Vancouver? I can see a possible problem there for a Nebraska venue because we would probably have to chain tractor wheel weights onto the rocks to keep them from blowing around when the gentle blizzard zephyrs start piling the snow fifteen or twenty feet high but we can work these things out.

But here's the real selling point of a Dannebrog Olympics: yes, we have winter in Nebraska, but we also have a state-of-the-art summer! And both sometimes occur on the same day! Thus another gigantic economy of money, time and effort: An Olympics held in Howard County, Nebraska, could have both the summer and winter games simultaneously! And the biathlon where they ski and shoot could even work to our advantage by using the opportunity to cut down on the surplus deer population.

We could improve a lot of the goofy sports that have found their way into the games by tweaking them to the Nebraska side of things... cow chip throwing, chokecherry pit spitting, kolache shootouts, accordion pumping, pick-up truck leaning, elbow bending, weather whining, ambling, strolling, moseying, shambling and even shuffling. Nebraskans moreover would surely support a Dannebrog Olympics. After all, Nebraskans know their sports ... punt, pass, kick, touchdown, Pelini #1, Pelini #2, Pelini #3, quarterback, tight end, blahblahblah ...

Frankly, I don't see how the big cheeses on the Olympic committee can turn us down. I know what you're thinking: Welsch, you tried this same thing with Ed Koch ... and he turned you down ... what makes you think it will work this time? Think about it — all these years later Dannebrog is still here but has anyone heard lately from Ed Koch? I rest my case. ■

Roger Welsch is an author, humorist and folklorist living outside of the future Olympic town of Dannebrog, Nebraska. He has appeared in NEBRASKAland since 1977.



ILLUSTRATION BY TIM REIGERT



From time to time, I stumble on a picture that literally takes itself. This was one of those times. A friend of mine, Laura Stastny, runs Nebraska Wildlife Rehabilitation. She and an all-volunteer network take in all sorts of injured wildlife, nurse them back to health, and release what they can back into the wild. They care about all creatures, great and small, from chipmunks to bats, even skunks.

This mother opossum was brought to Laura's group with a torn up back leg, most likely from a dog attack. Upon closer inspection, nine tiny babies were discovered, hairless and with eyes closed, inside the mother's pouch. Once the babies were older, but still clinging to their mother, Laura brought them by my studio. With babies all over her, and an Audubon-esque grimace on mom's face, it was literally impossible to take a bad picture. I can't recall seeing anything quite so cute, or so interesting, in a long time.

Under the lights of the studio, the babies quickly learned there was nothing to be scared of and started to wander off, usually in nine different directions at once. This immediately turned into a rodeo, meaning that the shoot was over.

Since that summer day, I learned from Laura that all nine babies survived into adulthood, and all were released back into the wild. The mother will soon join them, once her leg is fully healed.

To learn more about Nebraska Wildlife Rehab and what you can do to help support their work, visit .

Joel Sartore
July 14, 2011



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