



FALL 2015 ~ SPRING 2016

Prairie Wings

Advancing Conservation in the Great Plains



MESSAGE FROM THE BOARD CHAIR

"Act as if what you do makes a difference. It does."

~ William James (1842-1910)

Audubon of Kansas- A Voice for Wildlife An Advocate for Prairie Conservation



Greetings Supporters and Friends,

2015 has been an exciting year for Audubon of Kansas! January got off to a great start when Philanthropy and Development Director, Monica Goss, joined the organization. Monica is expanding the organization's outreach to educate members and the broader community about Audubon's programs and activities. She organized the first member event at Mt Mitchell Heritage Prairie in September. Audubon members enjoyed prairie plant and birding tours of the property, lunch, and a guided tour of nearby glacial deposits and the extent of continental glaciations in the surrounding area, courtesy of Dr. Wakefield Dort. Look for Dr. Dort's article in this issue of *PRAIRIE WINGS*.

Ron Klataske, Audubon of Kansas Executive Director, organized and hosted several workshops throughout Kansas on the topic of Old World Bluestems this year. These workshops educated attendees on the risks to native prairies from these non-native, invasive species.

Audubon's future communications will be bolstered by a redesigned website, courtesy of Max Donnelly and the crew at Chronos Interactive, and e-newsletters. Please contact Monica Goss if you'd like to receive Audubon's e-newsletters. Audubon's Education committee, consisting of Trustees Evelyn Davis, Kelley Hurst, Beth Schultz, and Michael Donnelly, along with Monica Goss, are developing a new brochure to educate the public about Audubon of Kansas.

To stay abreast of legislative issues this year, Trustee Joyce Wolf initiated a partnership between Audubon of Kansas and the Kansas Rural Center to provide Audubon supporters with weekly legislative updates written by Paul Johnson. Please contact Monica Goss if you would like to receive these updates during the 2016 legislative session.

You'll find a diverse collection of articles in this issue of *PRAIRIE WINGS* covering pollinators and butterflies, Bison, roadside management, prairie burns and water resources. Sadly, this issue also includes a tribute to Larry Haverfield who passed away last fall. Larry was a champion crusader for wildlife, most notably for Black-footed Ferrets, an endangered species recently reintroduced to Kansas, and their choice prey, Black-tailed Prairie Dogs. Larry's work was nationally recognized by an award from Defenders of Wildlife, with the Haverfield clan, including Audubon of Kansas Trustee Cathy Lucas, attending the award presentation in Washington DC in September. Larry is immortalized in the children's book *Larry Saves the Prairie* by Matt Bergles.

Future outreach includes a one day conference planned for April 9th, 2016 in Lawrence. The conference, titled *Silent Spring 2016*, is designed to enhance public awareness of environmental issues facing both wildlife and plant communities. Attendees will learn what they can do to enhance their own yards and properties for the benefit of insects, birds and mammals.

We hope you enjoy reading this edition of *PRAIRIE WINGS* and continue to support the work of Audubon of Kansas; your support is vital to achieving Audubon's mission to promote appreciation and stewardship of ecosystems, with emphasis on conservation of birds, other wildlife and critical habitat.

Warm regards,



Lisa Stickler

Board of Trustees Chair



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Front Cover Photograph: Two Swift Fox pups on the Haverfield Ranch.
Photo by Ron Klataske.

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Photo by Bob Gress, BirdsInFocus.com

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The Mission of Audubon of Kansas (AOK) is to promote appreciation and stewardship of ecosystems in Kansas and the heartland, with emphasis on conservation of birds, wildlife, prairies and other habitats.

Prairie Wings is a publication of Audubon of Kansas, Inc. Additional newsletters and AOK E-News are published periodically. See our websites at www.audubonofkansas.org and www.niobrarasanctuary.org

Please consider becoming a member, giving a gift membership, and/or contributing to the vital work of Audubon of Kansas. AOK is an independent grassroots organization that is not administered or funded by the National Audubon Society. All funding is dedicated to our work in the central Great Plains and Prairie states.

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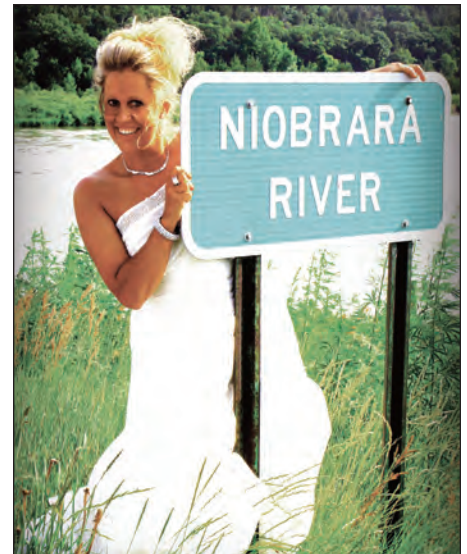
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John Schukman of Leavenworth tallied the birds he documented at the Achterberg Sanctuary on June 27-28. The list totalled 42, including Blue Grosbeak, Common Yellowthroat, Carolina Wren and Warbling Vireo.



Kc Photography

Lana Arrowsmith is AOK's local coordinator for the Hutton Niobrara Ranch Wildlife Sanctuary. Lana and John Arrowsmith were married along the Niobrara this past summer, July 4, 2015.



From left to right, Michael Donnelly, guests Craig Yorke and Stephen W. Mazza on a June field trip at the Connie Achterberg Wildlife Friendly Demonstration Farm. Michael is chair of the AOK Education Committee and a professor of English at KSU. A faculty award in English is named in this honor. Craig Yorke is a neurosurgeon from Topeka. Stephen Mazza is Dean and Professor of Law at the University of Kansas School of Law.



Ron Wolf of Lawrence stops during an AOK field trip at the Mt. Mitchell Heritage Prairie to model (as requested) the new AOK t-shirt featuring a Bobwhite Quail. The art and design was developed by Kate Larson of Lawrence.

Ron Klataske photos



A Welcoming Monica Goss Joins AOK as our Director of Philanthropy and Development

Monica Goss joined the staff of Audubon of Kansas in January 2015, a commitment by the Board of Trustees that instantly doubled the full-time staff of AOK. Monica is excited for this opportunity to work with Audubon of Kansas, to help build AOK's capacity, and our expanding opportunities and challenges to preserve imperiled wildlife and diminishing prairies and other precious resources in the central Great Plains.

Monica Goss has lived in Kansas since she was two years old. Kansas has always felt like home. But she didn't fall in love with the prairie until she was a junior at Manhattan! She remembers the specific occasion – a trip to the Konza Prairie Research Natural Area south of Manhattan. Her sister Theresa, a plant biologist, was volunteering at the time and took her to see some of the research plots. Monica became enthralled with her surroundings – the large open sky, tall grass, Bison, luscious greenery and rolling hills. Such serenity! Such beauty! Thereafter, she felt great pride in her home state and was determined to help preserve its beauty.

Monica attended and graduated with a BA in Environmental Studies in 2012 from the University of Kansas. As an undergrad she was involved with environmental advocacy groups, community organizing and outreach. She also became enthusiastic about organic farming/gardening and worked at various farms in the Lawrence area.

Monica completed independent research on prairie restoration and ethno botany at KU, and studied field biology in South India. She has a world view, consistent with a philosophy adapted to a motto that Audubon has used – that is to *"think globally and act locally."* Her parents emigrated from Egypt to the US in the mid '80s; her father accepted a position as a professor of Civil Engineering at K-State in 1992.

Monica married Neal Goss, a native of Pratt in southwest Kansas, in October 2012. Neal is an environmental artist and farmer/gardener. They live east of Lawrence, near Eudora, in a small country home. They have chickens, ducks, and guineas and plan to expand their food gardens and native plant gardens.

Monica is excited for this opportunity to work with Audubon of Kansas – and to help in preserving our imperiled wildlife and diminishing prairies. She has high hopes for the future of this organization. She looks forward to working with everyone who wants to assist in advancing the mission of Audubon of Kansas with financial and other forms of support.

"Sunshine is a welcome
thing. It brings a lot of
brightness."

--Jimmie Davis

An AOK Reception

There are many ways for members and supporters to support AOK conservation and educational activities, and extend our outreach to others who cherish our natural world. One way that is particularly enjoyable is to invite friends to a reception, lunch, or an informal gathering at one's home, ranch, farm or a cafe.

Monica Goss and Ron Klataske can help with planning, invitations, and will participate to provide an overview of AOK. A delightful reception was hosted by Randy and Adriene Rathbun at their home in Wichita this spring. Randy is an AOK Trustee. Although we cannot expect all hosts to share their musical talents, Randy and some of his musical friends gave us an opportunity to tap our toes!



Ron Klataske photos

Pictured from left to right, Adriene Rathbun and Deanna Harms; Carol Cumberland with Habibi, Adriene's adorable Yorkie Poo; Monica and Neal Goss; Randy Rathbun with guitar.

This Is My Story

Since settlement with land being parceled, part of my identity has been 22-12-8, and it is shared with three adjacent parcels of land. Specifically I am the Southeast Quarter (SE 1/4) and the South Half (S 1/2) of the Northeast Quarter (NE 1/4) of **Section Twenty-two (22), Township Twelve (12) South, Range Eight (8) West of the Sixth (6th) Principal Meridian** in Lincoln County, Kansas. My new name is the **“CONNIE ACHTERBERG WILDLIFE FRIENDLY DEMONSTRATION FARM,”** which I like very much.

But I have been around forever and have seen some good and bad times even in the last century. The bad included the dirty 30s with the ceaseless dust and hordes of grasshoppers. I’ve never understood where the grasshoppers came from, but they came and they ate everything. It was the only time I ever saw my steward cry. In other times things were better. Connie

came along and she did as well as she knew how. She grew up on my creek banks, and provided many a meal for her parents from the fish in my creeks — the bullheads and sunfish — along with the lambs quarters on my banks. She and the neighbor boys had happy times building forts and such. Every kid should have land to explore, with streams and woods like mine. Later Connie left home for some period of time. She was in high school and graduated in Wyoming. After law school, she came back and lived closer; she came quite often to see me. She delighted to see the flocks of pheasants and coveys of quail that made my thickets their home during the 60s and 70s.

During 2012 she wanted to be sure that I was taken care of for the rest of “forever” and this has really made my life happy and exciting. It is nice to be cherished.

In 2013 I knew something was up when Ron Klataske, Executive Director of Audubon of Kansas, came up with Connie one June

If The Land Could Speak

If the land could speak what would it say? Would you listen to it? If only the land could speak, it might say you take from me but yet you never give back. If only the land could speak, it might say you walk on me but yet you don't really know that I'm the pathway (to)...existence...of human. If only the land could speak. The land is our history. The land was here before we were born and the land will be here when we are gone.

Thoughts paraphrased from Welley's oral poem, Vancouver Poetry Slam, view at **Welley – If the Land Could Speak — YouTube**

In reality the land can tell us a great deal: if previous stewards have retained native prairie and woodlands along the streams or plowed and bulldozed them all; if shelterbelts and hedgerows were planted and retained; if there was a homestead and remnants of a farmstead remind us of families who lived here.



Connie Achterberg stands next to the sanctuary sign designed and made by Mark Neubrand.

day. He walked from my southwest corner to the Bullfoot Bridge on the northern portion of the east side. Soon after that I learned that I had been deeded to Audubon of Kansas on November 26, 2013, subject to Connie's life estate.

Now it seems a lot of other people cherish me as well, and some want to help with stewardship.

Ron suggested early on that I should have my own committee, and then gave that committee a lengthy outline of possible improvements to be done relatively quickly, and others, which can be done in the future. The committee eagerly embraced the plan and pursued other possibilities as well. Marge Streckfus is my scribe. Steve Burr, whose early leadership in the efforts to educate on conservation in central Kansas, and whose own farm has been a prime example of the best in conservation practices, is our mentor. Ira Lee Barnard and Jeffery Kasoff are making a list of my plants. Bobby Hiebert and Mark Neubrand are marking a trail through the entire length of the property for guests to go through while “birding” or just viewing the beauty of my naturalness, if I may boast a bit! They will make a list of the birds seen living in my wildlife-friendly habitats and others migrating through during all seasons. Some birds come here every year from as far away as Central and South America; others come from northern Canada to spend the winter with resident birds.

Mark made the sign for the southeast corner of the property, and he and Bobby Hiebert erected it. Dan Baffa purchased two picnic tables for the overlook; Doug Rudick and Jeffrey helped assemble them on site.

Years ago Connie “saved” my hedgerow along a portion of my west side from destruction, a result of her stewardship. Unfortunately, many thousands of miles of Osage Orange hedgerows have been eliminated. She also “saved” close to 9 acres of native pasture from being plowed. She refers to it as pasture, but it hasn't had livestock since her parents left the farm; others refer to it as a prairie meadow. Until this past year it has been cut every year for hay. Going beyond protection of

just what was, she and the tenant farmer put in upland bird “buffers” along the hedgerow, along both sides of Horse Creek and most of Bullfoot Creek. After only a couple visits, Ron drew a master plan for additional “buffers,” and instantly calculated the acreage that would be encompassed. Connie has now gone to the Farm Service Agency to apply to have those potential buffer areas added in the Conservation Reserve Program (CRP). Hurray!

I knew, of course, what the initials USDA stood for (the U.S. Department of Agriculture) and CRP, but then came many new initials, which neither Connie nor I had ever heard of. NRCS and EQIP came into our vocabulary, which we now have learned stand for the Natural Resources Conservation



Photos by Bobby Hiebert Jr. ©



In late September Bobby Hiebert Jr. and Mark Neubrand devoted three hours to birding on the Achterberg property and Bobby came back with a series of excellent photos, including these of a White-breasted Nuthatch, Blue-headed Vireo, Bell's Vireo and Carolina Wren. Lots of woodpeckers were present but wouldn't pose.

Likewise, three Prairie Falcons, observed when they arrived and again when they left, were elusive.

Service and Environmental Quality Incentive Program. As my long-term plan takes shape, NRCS staff have been consulted for recommendations for additional

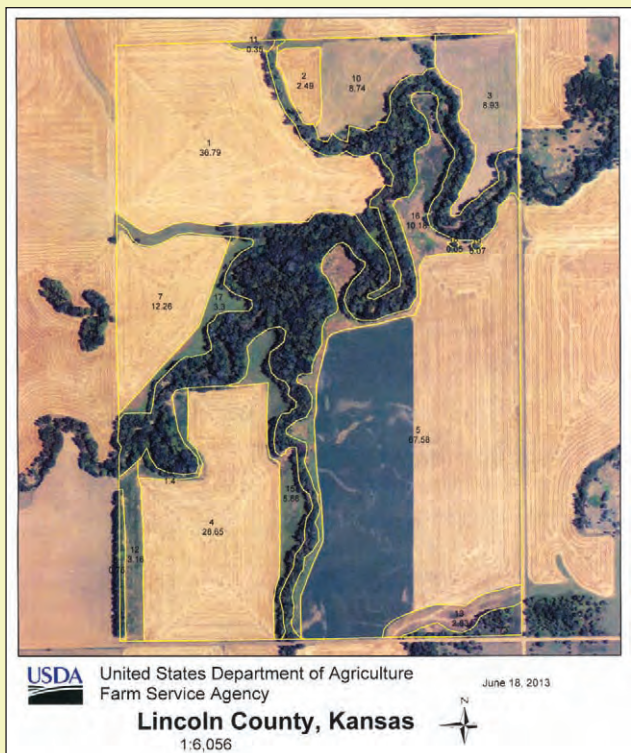
environmental enhancement improvements, specifically converting the brome grass waterways to native grasses and native forbs which will be much better for wildlife. It's great fun to have so much attention showered upon me.

I am neither a neglected farm, nor one where all traces of past family life or wildlife and wild places are being erased for intensive agriculture.

The hill on my southeast corner is being ridded of invasive Siberian Elm trees and they are being removed as it is being spruced up so visitors that come in the months ahead. They will have a place to walk, and to sit on a bench or picnic table while having an enhanced view of the fields and forests below. I've always enjoyed the sandstone outcrop that graces this hilltop.

Marilyn Helmer, who owns a business called “VILLAGE LINES” in Lincoln, Kansas, has organized tours of approximately 40 to 50 people each year for the past 14 years on alumni day, which usually falls in September or October. They visit various sites of note in Lincoln County. This past year she brought the group to look at me, and Connie visited with them when they arrived at the farm, and told them a small portion of my story. Dan Baffa, current president of the Smoky Hills Audubon Society and a member of my committee, followed with some of the beneficial aspects of the improvements on the farm, particularly the buffer areas. Mrs. Helmer has advised Connie that she is going to bring the group by with this year's tour again. That was particularly exciting to me.

On Monday, November the 10th, Ron and Connie met with NRCS biologists, Tyson Seirer and Allie Rath. They work for Pheasants Forever and NRCS. The morning was very pleasant and my wildlife came out from hiding and displayed themselves:



A USDA aerial photo of the Achterberg Farm delineating the various cultivated fields, the prairie meadow, and other features including woodlands along the streams, two grass waterways between fields, and the upland gamebird buffers along the riparian woodlands and hedgerow bordering the fields.



The large sandstone outcrop on the hill overlooking the farm is inviting, not only for their beauty for human enjoyment but also for the Mourning Doves that come to drink following rains.

Ron Klataske photos

forty-three Wild Turkeys, three White-tailed Deer, a Downy Woodpecker and several Meadowlarks. Many of my other birds were lying low in the afternoon because of the horrendous north winds.

At this point we are awaiting word from the NRCS biologists regarding additional conservation recommendations. These include the possibility of changing the two waterways in the fields that were long ago seeded to brome grass. The concept is to eliminate the brome grass (a major challenge) and reseed the corridors to native grasses and forbs to provide better wildlife habitat—protective cover and diverse sources of food. Connie and Ron are also proposing to plant a small field to native wildflowers for pollinators. I have been short on some forms of wildlife for the last several years; but during the recent milo harvest there were signs of recovery. Ron Battenhoff, the farm tenant, saw pheasants and one covey of quail when he was harvesting the milo last fall. Hopefully this is a sign of a possible resurgence, at least on my 240 acres.

I am eager to start partnering with my big brother, who also belongs to Audubon of Kansas. He is the **Hutton Niobrara Ranch Wildlife Sanctuary** along the Niobrara River in Rock County, Nebraska. It sounds like so many exciting things are going on up there at that sanctuary too.

Of course, my roots are here and I don't travel. But Connie was invited to journey to the Hutton Ranch, to see all of its features along the beautiful Niobrara River, a 76-mile stretch of which was designated as a National Scenic River by Congress in 1991. Our own Ron Klataske was instrumental, together with the landowners along the aforesaid stretch of the river and statewide conservationists, in securing designation as a protected river.

He formulated the plan to accomplish this and tailored draft legislation which they took to several members of the Nebraska Congressional delegation. It was presented as a "positive alternative" to the proposed Norden Dam and O'Neill Reclamation (diversion) Project. That half-billion dollar boondoggle would have dammed and diverted this spectacular river. The legislation enacted in May 1991 saved the river in a manner consistent with the pastoral and natural character of the land. Connie was privileged to have dinner at Sparks, Nebraska, with the two daughters of Franklin Egelhoff, who was one of the most committed landowners with whom Ron was privileged to work.

Connie loves Nebraska. Her parents were traveling, and so she was accidentally born in Grand Island rather than here at home. Connie loves that country, even though she recently experienced a strong storm there. When she went to visit the Hutton Ranch, the tornado alarms sounded in Grand Island when Ron was in the Piggly Wiggly getting groceries for the week to feed himself and Robert McElroy, one of the Audubon of Kansas Trustees. Bob was bringing his Tennessee walking horses up the next day. Ron came out to get Connie, and the store manager tried to put both of them in the freezers with the other customers. Fortunately the all-clear signal rang before they were sandwiched in the frozen-pizza freezer. Connie has claustrophobia and she might have been a problem for them!

Connie told me all about the wildlife on the ranch: the deer, the nesting Sandhill Cranes, the Black-tailed Prairie Dogs and many birds, including Bobolinks and Long-billed Curlews. I hope when all my improvements are finished, I might play host to an increasingly impressive array of wildlife species. If she had been up there during this past winter's snow storm she



Most cultivated fields no longer have annual forbs and grasses (“weeds”) which once provided brood cover with a diversity of insects for the nutritional needs of young quail chicks and other foraging birds. However, CRP field buffers can compensate to a considerable degree and provide many year-round habitat needs, especially when adjacent to grain fields. This excellent 2014 milo crop established by Ron Buttenhoff and the adjacent CRP buffer illustrate the potential. After additional buffers are planted in 2016, all cultivated fields on the Achterberg Farm will be nearly surrounded by upland bird field buffers and/or riparian buffers. The satisfaction of stewardship is even greater when Bobwhite Quail, Pheasants, Meadowlarks and Harris’s Sparrows are found feeding on waste grain in fields with adjacent escape cover throughout the winter.

would have told me that an Elk had come across the river and was on the wet meadows. At 5,000 acres, the Hutton Ranch is more than 20 times bigger than I – but I am okay with that. It will be wonderful to know that sanctuary will always be there, sharing our respective strengths, as part of the same system.

She also told me about the Harold and Lucille Hutton’s home, which has been beautifully appointed and refurbished as a guesthouse. And, now with the urging of the Nebraska members of that sanctuary’s committee, the AOK board has approved restoring the original Hutton homestead in a grove of stately bur oaks near the river where Harold was born.

I have a little sister, too, called the Mount Mitchell Heritage Prairie, which is located in the Flint Hills south of Wamego. I haven’t learned much about her yet, but I hope to do so soon. I have heard that she has some of the most wonderful natural prairie in Kansas and Audubon is dedicated to protecting it.

It is wonderful that we can always have this network of AOK sanctuaries between us to further our common goals. Maybe we can welcome additions from other parts of our states before too long. .

I mentioned earlier about reports of Nebraska storms, but I have my excitement too. Plentiful rains come around once every several years causing Horse Creek and Bullfoot Creek to overflow. I get a complete bath when the water rises above my furrows so my whole body is covered for about 24 hours. It brings new nutrients, and it feels wonderful even though it is always somewhat of a shock.

There have been reports of water conferences and development of a state water plan. I am greatly interested in that. I am hurting badly because most of the water that used to come down my creeks is no longer there. In late summer a bare trickle

flows, hardly enough for minnows and seldom sufficient in which my bullheads and sunfish can play. After the dry 30s when Connie was growing up, it was a fairly good stream all year long. I hope to hear someday that they will restore aquifers and reliable instream flows in central and western Kansas.

A love of streams and fishing was spawned here. *My Lady*, as I sometimes think of Connie, married a master fly-fisherman, the late C.L. Clark, and that further inspired her to become an equally avid angler—fly fishing for *trout* in Montana in her 80s!

Now that I have shared my story, and some of Connie’s, please visit me.

With love, 22-12-8



Pat Neustrom photo

“You will find angling to be like the virtue of humility, which has a calmness of spirit and a world of other blessings attending upon it.”
- *The Compleat Angler*, Izaak Walton (1593-1683)

The Hutton Niobrara Ranch Wildlife Sanctuary



A Green Emerald along the Blue Niobrara River

Paul A. Johnsgard

Over the first sixty mile segment of the Niobrara National Scenic and Recreational River, the river makes a graceful bend south, reaching its southernmost point along the northern border of Rock County. There, about 15 miles northeast of Bassett, a relatively new Audubon wildlife sanctuary is situated, like a green emerald set dangling below the blue necklace-like Niobrara.

The sanctuary, nearly 5,000 acres in expanse, is the remarkable gift of the late Harold and Lucille Hutton. Harold was the son of a prominent multigenerational homesteading family. He was a rancher, author, and entrepreneur. Harold was also a lover of nature, and decided that he would like to have his land preserved as a nature sanctuary after his death. He initially approached the National Audubon Society, and considered a number of other organizations and agencies. However, he felt they were all unwilling to promise that the land would never be sold, and/or might not be maintained in a manner that he envisioned. Luckily, Harold found a willing and interested listener in the form of Ron Klataske, executive director of Audubon of Kansas.

Ron Klataske first met Hutton in 1980, while Klataske was serving as a regional vice president for the National Audubon Society, and spearheading a strategy to win Congressional approval for designating a 76-mile stretch of the middle Niobrara as a national scenic river. This would insure that its remarkable geological, paleontological and ecological treasures would not be destroyed by the impoundment of the valley by a proposed \$205-million dam near Norden. The Norden

Dam was to be part of a massive dam and diversion “reclamation” project that would have benefitted only a few agricultural interests sixty miles away in Holt County, at the expense of the near-destruction of Nebraska’s most unique and most beautiful river.

Fortunately, the Norden project was eventually abandoned, but the bonds of friendship that had been formed between Klataske and Hutton persisted, and ultimately after Harold’s death his widow Lucille requested that Audubon of Kansas accept the title and stewardship responsibility for the land. It was not until 2008 that the last legal obstacle to the property’s grazing leases were settled, and the slow process of habitat restoration could begin.

I was part of an informal delegation from PRAIRIE FIRE, Nebraska’s free newspaper published under the banner of “The





Progressive voice of the Great Plains,” that visited the sanctuary in May, 2014. Four of us spent nearly three days roaming the grasslands, woods and wet meadows, and trying to absorb the rich diversity of plant and animal life. A Sharp-tailed Grouse lek, with over 20 participating males, was located on a grassy hilltop only a half-mile from the beautiful guesthouse

(Hutton’s home) where we slept, and from which we could hear the birds’ daily dawn dances.

From the guesthouse’s kitchen windows I watched and photographed many of the bird species attracted to the honeysuckle shrubs and backyard feeders, such as Spotted Towhee, Blue Grosbeak, Black-capped Chickadee, Yellow Warbler, and Northern Bobwhite. Turkey Vultures patrolled the prairie beyond, and dozens of Barn Swallows swarmed around the nearby-dilapidated barn like excited bees. Two gigantic cottonwoods immediately west of the house had probable nesting pairs of Red-headed Woodpeckers and Northern Flickers, as well as a possible pair of American Kestrels. In the past, Wood Ducks have also nested in the trees’ numerous cavities. The front porch on the east side of the house had an Eastern Phoebe nest with a resident incubating phoebe, who was repeatedly frustrated by the frequent human intrusions forced on her. But she persisted.

One of the two cottonwoods, a three-trunk giant, towered over the other. I decided to roughly estimate its circumference



by seeing how many of my fingertip-to-fingertip units of personal measurement (about 80 inches, here defined as one “johnsgard”) were needed to circumscribe it. I found that the distance was in excess of six *johnsgards*, or about 40 feet! What a rich history that tree has no doubt had, and what wonderful animal guests it must have hosted within its cavities and under its leafy canopy over the past century or so.

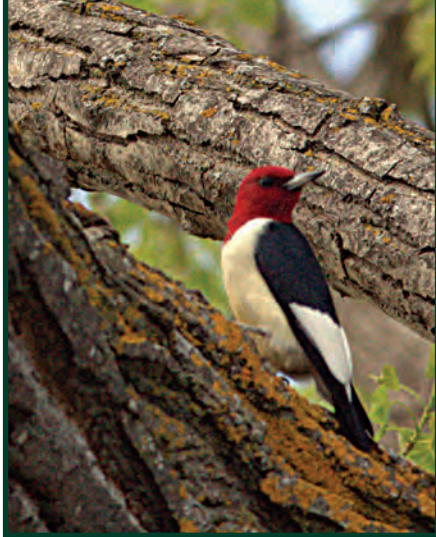
Along the sanctuary’s sandy upland roads I saw uncountable Lark Sparrows, Eastern and Western Kingbirds, Western Meadowlarks and Mourning Doves, dozens of Grasshopper Sparrows and Upland Sandpipers, as well as a pair of Long-billed Curlews, Northern Bobwhites, and Sharp-tailed Grouse. White-tailed deer periodically bounded over the rich Sandhills prairie, and a lone, apparently lost, male Bison plodded peacefully past us on his way to some destination probably known only to him. A colony of Black-tailed Prairie Dogs was thriving within a well-fenced boundary. Ron had somehow managed to negotiate the Nebraska Game and Parks Commission’s policies to reestablish this colony on the property and legally exhibit prairie dogs for their educational and scientific values. In my opinion, the Commission’s near-absolute avoidance of any participation in proactive management of this species is inexcusable and an absurd failure to recognize the ecological value of this native keystone species. It is an insane policy, political imposed. We saw at least four young pups peering out from the top of one of the burrow mounds. Many of the burrows themselves of one had been covered by metal panels, similar to “cattle panels” but with 4”X4” opening, to keep out Badgers and Coyotes.

The road down to the river bottom wetlands was rich in surprises. Nearly all the trees, other than the invasive red cedars, were deciduous hardwoods, especially bur oak, but there was also green ash, boxelder and various eastern woodland shrubs, such as red osier dogwood, wolfberry, and chokecherry. A couple ponderosa pines are present on the sanctuary’s property and are probably the easternmost naturally occurring ponderosas on the south side of the Niobrara Valley. A grove of mature bur oaks surrounds the original homestead site, where a beautiful wood-frame house that had been built in 1903 and had replaced an earlier log cabin still stands, as does a precariously tilting outhouse. The house’s fate remains to be determined, although the outhouse is now probably only acceptable to Porcupines and Wood Rats, which don’t seem to object to sloping seats.

Perhaps Harold’s childhood home could become a counterpart of Aldo Leopold’s shack in the Wisconsin woods, a place where one can get a sense of the past, the immediacy of nature, the sounds and smells of the present, and a respect for all of our fore bearers.

The bottomlands had several meadows supporting territorial Bobolinks and Red-winged Blackbirds, as well as a few Yellow-headed Blackbirds, whose squeaking courtship calls sounded like so many rusty gates. Sandhill Cranes have nested and produced young in marsh meadows during the past two years, representing perhaps the first record of





Sandhill Cranes breeding in northern Nebraska since the late 1800's. Virginia Rails have been heard calling from the marsh at dusk, and we flushed a lone Great Blue Heron.

One evening we heard Whip-poor-wills, a distinctly eastern species near the western edge of

its range, calling in an oak grove near the Hutton childhood home. We also heard Yellow-breasted Chats calling in the riverine shrubs; this now mostly western species has nearly disappeared from eastern Nebraska, so its occurrence so far east is noteworthy. The orioles here appear to be of the eastern Baltimore species rather than the western-oriented Bullock's Oriole, although this region lies within the two species' broad hybrid zone. Likewise, the bunting here is reportedly the eastern Indigo Bunting, rather than the western Lazuli Bunting, whereas the resident grosbeak is evidently the western black-headed species rather than eastern Rose-breasted type. All of these species pairs sometimes hybridize in the Niobrara Valley. Both Eastern and Western Meadowlark species have also been reported from Rock County, further illustrating its transitional biogeographic location.

Along the river's edge we could see Beaver activity, and River Otters have also been observed here. Farther out on the river, Canada Geese were gathered, and several territorial pairs were scattered over the meadows where they could fight over territorial boundaries. Male Bobolinks resembling feathery flowers periodically erupted from the meadow into their melodic song flights, and on the adjacent hillside nearly a dozen Wild Turkeys were clustered in preoccupation with their own equally remarkable mating rituals.

After a long afternoon of hiking and birding, our last sunset was spent on an overlook that provides both upstream and downstream vistas for a mile or more. Looking upstream, the river is notably wide and shallow, with many bare sandy islands of varied artistic configurations. As we stood there, silently watching the daylight turn softly into twilight, and the sky colors slowly burn out into shades of gray, the unison calls of two Sandhill Cranes suddenly broke the silence and echoed down the valley. I felt goose bumps form on my arms as my favorite and most emotionally powerful sound in the world suddenly penetrated my consciousness; it reminded me yet again why Nebraska is my one and only true spiritual home.



Paul Johnsgard photos: An Upland Sandpiper; a spectacular sunset view of the Niobrara River from the bluffs within the sanctuary; Spotted Towhee near the guesthouse; Bobolink in song flight over wet meadow habitat; an upland grove of cottonwood trees in morning light; Red-headed Woodpecker in the magnificent cottonwood behind the guesthouse; Grasshopper and Lark Sparrows on pasture fence; prairie carpeting breaks above Niobrara canyon; and, five Wild Turkey gobblers in courtship display.



Paul Austin Johnsgard is an ornithologist, artist and emeritus professor at the University of Nebraska. His works include nearly seventy books including several monographs, principally about the waterfowl, cranes and gallinaceous birds of the world. Born in North Dakota, he majored in zoology at N.D. State University and then attended Washington State University for his master's degree. His early published works attracted the attention of Charles Sibley who invited him to consider a Ph.D. at Cornell University. Paul moved to England at the Wildfowl Trust at Gloucestershire founded by Sir Peter Scott. Two years later he produced his first book, the *Handbook of Waterfowl Behaviour* published by Cornell University in 1965. Paul is one of the most prolific authors of ornithology books and natural history.



Your Support: is vital to AOK's effectiveness

Your annual membership and other gifts to Audubon of Kansas are vital to our ongoing conservation, education, sanctuary stewardship, and advocacy work. AOK cannot function without the support of members and annual contributions. We thank you for your continuing dedication and generosity. Donating online allows monthly giving. We use Verisign SSL security to ensure our donors a safe and secure transaction. Other ways to contribute include memorials/ tributes, and gift memberships. Please consider making a charitable contribution at this time. AOK is a 501(C)(3) nonprofit organization.

Legacy Gifts

Planned Giving Options

By establishing a *planned gift* to Audubon of Kansas, you can also ensure that AOK continues to be equally effective in the future. We have outlined several ways to establish a *planned gift* below:

Make a Gift of Stock or Bonds.

Appreciated stock or bonds held for more than one year is most advantageous. Your gift will provide a financial contribution to Audubon of Kansas, and you will avoid capital gains taxes.

Create a Charitable Gift

Annuity. By establishing a charitable gift annuity with Audubon of Kansas, you will continue to receive fixed payments for the rest of your life and have a charitable deduction. Charitable gift annuities offer payment rates that are more attractive than many other investments, with the rate amount determined by your age. In addition, you have the satisfaction of knowing that the remainder of your gift will benefit Audubon of Kansas conservation and education initiatives well into the future.

Include a Bequest in Your Will or Trust (specific property, cash donation, or a share of the residual estate). You can make a gift for the future of Audubon of Kansas programs in a way that does not affect your options during your lifetime. You may change your mind on beneficiaries at any time if these assets are needed for other purposes. Such a bequest may, however, provide an eventual estate tax deduction.

Persons wishing to make a bequest to Audubon of Kansas, Inc. may tailor it to their individual interests or use wording similar to the following:

I bequeath ___% of my residuary estate (or \$____) to Audubon of Kansas, Inc., a not-for-profit 501(C)3 conservation organization incorporated in the State of Kansas with its address at P.O. Box 256, Manhattan Kansas, 66505.

Make a Gift of Land, or other Real Property. Gifts of real estate or other property are excellent ways to establish a major donation. Gifts of land that can be sold with the proceeds to be used to support general or other specific programs (in this case Audubon of Kansas programs), are referred to in the profession as **"Trade Lands."** Some parcels may be protected with conservation easements prior to sale. Proceeds can be designated for specific conservation, education or even stewardship of an established AOK sanctuary. Other donated property could include items like paintings, sculptures, books, etc. that could be used or sold to support conservation and education purposes.

Gifts of Land to be Maintained as a Wildlife Sanctuary (such as the Hutton Niobrara Ranch Wildlife Sanctuary) generally require establishment of an adequate endowment to fund future operations, pay annual property taxes and ongoing stewardship of the property. Gifts of land for this purpose must be consistent with the Audubon of Kansas mission, and require Board of Trustees approval. Thus, lands destined to become a protected sanctuary or preserve are best achieved with advanced planning and notification of AOK.

Cars for Conservation! AOK is interested in receiving a reliable vehicle to retain for business travel. Vehicles and similar property can also be donated and then sold to generate funds for AOK operations.

Audubon of Kansas, Inc. is administered by a Board of Trustees with interests in conservation and education in Kansas, Nebraska and generally the central Great Plains and prairie states. AOK is an independent, grassroots organization that is not administered or funded by the National Audubon Society. All funds received are devoted to conservation advocacy, nature appreciation initiatives, education and stewardship (including management of wildlife sanctuaries) in America's heartland.

Photos of a wildflower enthusiast at Mt. Mitchell, children viewing a prairie dog burrow at the Niobrara Sanctuary, and Burrowing Owls by Ron Klataske



Please contact Monica Goss, Philanthropy Director or Ron Klataske, Executive Director at 785-537-4385 or via email at AOK@AudubonofKansas.org for additional information.

Captivating Creativity of Classmates Takes Shape as Gallery Curators

By Mary Zeman
Photography by Kay Stewart

Packing our bags in Portland and Princeton, in Philadelphia, Connecticut, Minneapolis, Omaha and Lincoln, seven childhood friends travelled to Bassett this spring. After annual reunions elsewhere, it was time to return to Nebraska, to the earth and culture that held and raised us.

We met at the Corral Bar & Grille in town, toasted decades of friendship and devoured savory plates of burgers and fries. Just before dark, we drove to the Hutton Guesthouse. The sky was wide, the prairie grass was a symphony of light that time of day, and we knew we were onto something good.

Through the years, time is never enough for these reunions; we always wish for more. There are grandchildren, children and life issues to discuss. We take walks, we languish in the kitchen over good and satisfying meals, we swap our tales, we stay up late.

But this year, there would be one dimension more. We were meeting in Nebraska, inspired by the work and mission of the Audubon Society, and wanted to give something of ourselves. Ahead of time, we asked if there were any projects that needed extra hands. Little did we know what awaited us.

Attached to the guesthouse (two thumbs up for accommodations there) was an expansive room with a closet-like side room. Both were filled with a wealth of undocumented and unorganized artifacts and memorabilia that once belonged to Harold and Lucille Hutton. We were told it was a dream of Audubon of Kansas leaders (several of whom have deep Nebraska roots) to honor Harold and Lucille by turning this space into a small museum. The envisioned space would highlight their lives and acknowledge the extraordinary gift they gave by contributing their 5,000-acre ranch with the request that

it be preserved as a wildlife sanctuary. We rolled up our sleeves and got to work. With delight and amazement, we sorted through containers and boxes and selected a great number of Lucille's paintings and exquisite hand made dresses. We found Harold's stately top hat and a Stetson, his eyeglasses, an old silver flask, a collection of hunting memorabilia and some of his books.

Together, we pounded holes in the walls, hung paintings, and made decisions about how best to tell the story of Harold and Lucille. Over two days' time, we swept the floors, arranged furniture and other treasures, and adjusted the track lighting to honor each piece. When we finished, we realized we had not only given something back to Nebraska, we had re-affirmed the life long gift of prairie culture and the heartland within us.

Did we get more than we were coming for? Indeed.

Our time together was not compromised, but elevated by this

"You can go through life and make new friends every year...but there was never any substitute for those friendships of childhood that survive into adult years. Those are the ones in which we are bound to one another with hoops of steel"

Alexander McCall Smith. The No.1 Ladies' Detective Agency

project. We worked together with grit, nuance and opinion (traits common to us all). We laughed a lot. Meanwhile, there was still time for communion and adventure together. We embraced the sublime vistas, the prairie winds and the drama of sounds at night. Over breakfast, someone said, "I think I heard wolves last night". Chuckle, chuckle, "This is Nebraska. That had to be coyotes!" We walked along the river, binoculars in hand. The world felt fresh and new, we were amazed by all the birds we

saw, then found ourselves whispering in hopes of seeing more. Toward evening, we beheld the closing of the day as if it were something unique and new. The sky gradually darkened, the wide canopy of stars appeared, we stood together, dazzled.

One afternoon, we found our way to the Hutton homestead, Harold's childhood home, and the secluded frame house where Harold and Lucille lived for a time during part of their marriage. Having poured through so many of their possessions, we could easily imagine them living there. The house was rough and empty, except for remnants of old necessities and left over bits of curtains on broken windows.



It's there we discovered the missing treasure, an essential piece for the new "Hutton Museum" we were creating. Lying in a dingy corner was Lucille's handmade, paper dress form, the necessary tool for any serious seamstress. We carried it back to the Hutton House, knocked off the grimy cobwebs and left it in the sunshine for an hour or two. When we brought it inside, we slipped one of Lucille's hand stitched, jewel-collared masterpieces over the top and were not surprised. It was a perfect fit.

Perfect, just as these days were for each of us.

With deep gratitude,

Seven Nebraska girls, your ad hoc **Hutton Visitor Center/Gallery Curators**



Kathy Day Elliott (Lake Oswego, OR), Nancy Crosby Kelly (Omaha), Mary Eno (Philadelphia), Kay Calkins Stewart (Minneapolis), Mary Tidball Zeman (Rowayton, Conn.), Elizabeth Walters (Princeton, NJ), Judy Brauch Greenwald (Lincoln).

NATIVE SHRUBS ARE CRITICAL COMPONENTS OF HABITAT

FOR A KALEIDOSCOPE OF SONGBIRDS AND UPLAND GAMEBIRDS IN GRASSLANDS, FARMLANDS AND RURAL LANDSCAPES IN THE GREAT PLAINS.



Native shrubs in the landscape do not get the credit they deserve. Dozens of bird species rely on native shrubs and the unique habitat provided by shrub thickets. For resident species like the Northern Bobwhite and Northern Cardinal, shrubs are vital throughout the year. The list of migratory bird species that rely on shrubs and similar habitat at

various times of the year is incredibly long. Our purpose here is to provide a glimpse of some of the most notable “regulars” that utilize shrubs and other brushy areas.

It is a delight to contemplate the connections—connections made by birds—that a few shrub thickets on one’s farm or ranch may have within the western hemisphere. Neotropical migrants



"When one tugs at a single thing in Nature, he finds it attached to the rest of the world."
~ John Muir



Spotted Towhee © Bob Gress, BirdsInFocus.com



Blue Grosbeak © David Rintoul

are well represented among the breeding birds that nest within the branches, forage for food within the thickets and surrounding vegetation, and find shelter from storms and searing heat. Other species pass through in seasonal migrations, and some (Neoarctic species) come to the central Great Plains to spend the winter. The Gray Catbirds nesting in a dogwood thicket in our

pasture may winter in Costa Rica; and the Harris's Sparrows that hang out here in the plum thicket along the driveway all winter travel back to the far northern reaches of Canada each summer. If we all mapped the travels of each of the birds that utilize the land we share and the habitats they need, we would likely marvel at how important it is to life far beyond our horizons.



Northern Mockingbird © Bob Gress, BirdsInFocus.com



Yellow-billed Cuckoo © Bob Gress, BirdsInFocus.com



Painted Bunting © Bob Gress, BirdsInFocus.com



Loggerhead Shrike © John Bosnak



Northern Cardinals © John Bosnak



Orchard Oriole © David Rintoul



Bewick's Wren
© David Rintoul

*"Hope is the thing with feathers
That perches in the soul
And sings the tune without the words
And never stops at all."*

~ Emily Dickinson



Eastern Kingbird
© Ron Klataske



American Robins
© Ron Klataske

Tragically these habitats are often regarded as simply brush to be leveled with brushhog mowers, sprayed with herbicides, or bulldozed. Where brushy draws occur in farmed fields, the USDA Natural Resources Conservation Service requires removal to be replaced by monoculture grassed waterways (usually planted to brome grass) when terraces are installed with governmental cost-share dollars. Many tens of thousands of miles of brushy draws have been removed for this purpose in Kansas and surrounding states, and a similar fate is imposed with herbicides at the hands of county noxious weed departments on native vegetation along tens of thousands of miles of rural roads. Within the rural landscape, tens of millions of federal dollars have been spent via USDA to broadcast spray

grasslands to kill shrubs. It is not that woody plants should not be controlled and managed, it is the total disregard for ecosystem values by agencies of government that is so disappointing.

There is a Need to Include Birds in the Balance. Unless wildlife organizations step to the plate and go to bat for birds and other wildlife that depend on shrub habitat, governmental agencies will ignore the detrimental impacts of their actions. Considering that many entities have only recently begun to recognize the importance of pollinator habitat, there may be *hope* that the diversity of habitats needed by birds will be recognized as well.

Some of the native shrubs and woody vines that are most notable and of significant value for birds in the central prairie states include American plum, sandhill plum, choke cherry, rough-leaved dogwood, elderberry, aromatic sumac, smooth sumac, golden current, buckbrush (coralberry), riverbank grape and bittersweet.

Incredible “Little Brown Birds”

Thirty-five species of American sparrows are our most unimposing and secretive songbirds. But once one gets to know them, they add greatly to our enjoyment of the natural world around us. Their songs are beautiful, but for many displays of their breeding plumage and songs are brief during their spring stay. Many species have distinctive head patterns. Most are migratory; a third nest in the central Great Plains. Others winter in this area or pass through fall and spring. American sparrows are insect and seed-eating birds and most depend on habitats with a mixture of grasses, shrubs and weedy patches. These New World passerine birds share the family Emberizidae with similar buntings, juncos, towhees and longspurs.

Birds of a Different Feather - Although American sparrows are delightful and desirable in every way from a human perspective, they—unfortunately—share the name “sparrow” with the introduced “House Sparrow.” Our native birds are not closely related to House Sparrows. Like European Starlings, House Sparrows are ecologically destructive because they displace native birds from their cavity nesting sites, and they are introduced often a nuisance around farmsteads.



Harris's Sparrow © David Rintoul



Lincoln Sparrow © John Bosnak



Field Sparrow © David Rintoul



White-Crowned Sparrow
© Bob Gress, BirdsInFocus.com



White-Crown Sparrow © Mike Harding



White-Throated Sparrow © John Bosnak



Song Sparrow © Michael Harding



Dark Eyed Junco © David Rintoul

Birds of Southwestern Shrubs

The more arid southwestern part of Kansas hosts a number of birds associated with shrub vegetation unique to that area. Curve-billed Thrashers, Greater Roadrunners and Scaled Quail are among them. They all gravitate to "thorny brush" when it is available. Although rare and routinely eliminated, the shrub-like cholla cactus is one of their favorite protective hangouts. Southwestern Kansas is also the largest remaining occupied range for Lesser Prairie-chickens (LEPC). Sand sagebrush, *Artemisia filifolia*, is a branching woody shrub and it is one of the most valuable components of LEPC habitat. Grassland habitat is vital for both Lesser and Greater Prairie-chickens, but people often overlook the fact that a low canopy of shrubs and forbs is important for brood and year-round protection from the elements and concealment from predators. —Ron Klataske



Curve-billed Thrasher © David Rintoul



Scaled Quail © David Rintoul



Lesser Prairie Chicken © Bob Gress, BirdsInFocus.com



Sand Sage Prairie © Ron Klataske



Although Vital for Bobwhites
and a Vast Array of Songbirds,

It Isn't Easy Being a Shrub

—or Even a Forb—in Native Rangelands

Article and photos by Ron Klataske

Any farm family member from earlier generations who walked their land and worked the smaller fields of a time when fencerows and roadsides were surrounded by shrub thickets, native grasses and a complement of a few weedy patches, *any old time quail hunter*, and *any birder of any generation* knows that the presence of thickets and broadleaf plants are key to an abundance of many birds in rural landscapes.

Native *shrubs and forbs* (including an array of wildflowers) are often nowadays referred to negatively and as simply *brush and weeds*—even where naturally occurring in native rangelands. If they increase in abundance in grasslands due to an absence of adequate prescribed burning or due to the distressed conditions of grasses due to intensive grazing, they are blindly cast as invasives that surely don't belong there.

A range researcher in central Kansas recently reported to me in private conversation that he often gets phone calls from landowners describing a plant that seems abundant at the time with the questions of, “What is it, and how do I get rid of it?” As a range ecologist with both feet planted in sound science, he usually determines that the plant is native, either beneficial as part of the nutritious forage, of no consequence to grass production, or simply reflecting a temporary excess of moisture not utilized by dominant grasses. Due to advertising and promotional publications, the instinct to spray and eliminate broad-leaf plants is pervasive. And, inquiries usually go to chemical dealers and others who reinforce that approach. A few follow in the footsteps of the late John L. Launchbaugh at the Kansas Agricultural Research State at Hays.

In 1978, Launchbaugh and Clinton Ownsby co-authored Bulletin 622 entitled **Kansas Rangelands: their management, based on a half century of research**. The section on managing perennial forbs articulates that most subdominant forbs have root systems that use moisture below the major extraction zone of grass roots, also the taller growing broadleaf plants moderate microclimatic factors—wind velocities, temperatures, and evaporation rates near the ground—and “thereby reduce environmental stress on the perennial grasses.” At that time, the report went on to state that, the “role of native legumes in adding nitrogen to range soils has not been clearly defined. Many legumes, along with other forbs, however, have much higher protein content than do the grasses, and the most palatable ones are sought out and grazed by livestock. Livestock gain more on

ranges with mixtures of grasses and forbs than on grasses alone...so most broadleaf plants...are desirable on native range.”

This publication of 37-years ago even revealed that “western ragweed stands averaging 1,200 lbs. dry matter per acre appeared to be beneficial to grass production” in a study area near Hays. Stands with yields nearly to 3,000 lbs. did not reduce grass yields in another study. Western ragweed seeds are highly nutritious and one of the most important foods for quail and other grassland birds, especially wintering birds. I've also observed that when cattle are turned into pastures with ragweed in the fall they devour ragweed seedheads, likely for that very reason.

However, with the exception of far too few in the profession, range management has been overly influenced—highjacked in many institutions—by advocates of herbicide applications since the early 70s and the decades that followed. Prior to the slashing of budgets for such purposes, states funded research. That role is now taken by agribusiness interests that have products to sell.

During the past 27 years a corporation in Lindsborg, Kansas has produced and distributed 359,809 copies of a 16-page “Special report” publication entitled “**GRASS: The Stockman's crop**” prepared by NRCS range specialists who do not mention anywhere in the publication the values of native forbs. All broadleaf plants are simply referred to as weeds and brush, to be controlled by various means. Likewise, there is no current information of the value of patch burning. One headline section is “**Control Brush and Weeds.**” This publication has been purchased and distributed by NRCS, BLM, the US Forest Service and Bureau of Indian Affairs. With this systemic philosophy in publications, presentations and funding assistance as a backdrop, it is little wonder that grassland birds are the suite of birds in greatest decline in North America. With a 98 percent decline Greater Sage-Grouse are now imperiled in large part due to habitat destruction—including spraying of big sagebrush and associated plants on millions and millions of acres of public land and federal funding on private land. A similar approach has contributed to the precipitous decline of Lesser Prairie-chickens.

In reality, prairies, especially tallgrass prairies, have always consisted of hundreds of different plants. One doesn't have to be a wildlife or wildflower enthusiast to appreciate the ecological contribution of the full range of grasses, forbs, sedges and shrubs to the range of resource values contributed by the diversity of



55-gallon barrels of herbicides fill a trailer and are on the ground awaiting aerial spraying of a rangeland in northern Osage County Oklahoma in the mid 1970s.

this plant community. The legumes are part of the reason why native rangelands do not have to be fertilized to remain productive.

If you are wondering why the values mentioned above are overlooked and why native shrubs and forbs are regarded as brush and weeds, examine the combined contribution of ecologically-illiterate agronomists in agencies and the vested interests involved in sales of herbicides, and even academics funded and focused strictly on the efficacy of herbicides in field studies. The measure of success is killing plants.



A typical native rangeland needlessly sprayed (September 2015 photo) in the Flint Hills west of Cottonwood Falls. Although the narrow strip of shrubs along the waterway and the lightly scattered forbs and sumac in the foreground were killed, they were likely beneficial to the health of the rangeland, of value for grazing and certainly for wildlife. Stewardship is a landowner's privilege, but should the public pay for ecologically destructive practices?

For decades government agencies, most notably USDA, helped to finance—and along with the Extension Service—promoted with publications and programs the philosophy that herbicides were the answer to management of rangelands. Sales

representatives of Dow Chemical and other herbicide companies have often and continue to be included as part of Extension-organized programs. They provide free meals—and product literature such as the 63-page “**RANGE & PASTURE Weed Identification Guide**” published by Dow AgroSciences. It illustrates about sixty plants that they consider weeds, hoping people will come to believe they all need to be sprayed. Although many of the noxious weeds in the Great Plains are listed, others that are seldom a problem are included to give the impression that they are. In many cases they aren't prevalent in pastures simply because they are readily eaten by livestock. The long list is provided so a landowner comes away with the idea that surely some are out there and almost everything that isn't a grass should be sprayed. Don't expect to find any suggestion (or even a mention) that there are broadleaf plants that are important for wildlife and pollinators, of value for forage or for rangeland sustainability—as with native legumes.

The Dow preamble on page one states that, “*Annual and perennial weeds restrict grazing, ruin wildlife habitat and reduce forage yields....managing them is a must.*”

There isn't any suggestion that range management strategies that utilize planned grazing systems, prescribed burning, patch burning and mechanical control (particularly of woody plants) can effectively achieve optimal rangeland management conditions without the need for any broadcast applications of herbicides. By contrast, the first page discounts anything other than herbicide applications by suggesting that, “*Although mechanical control methods temporarily appear to do the job, they are labor-intensive and costly.*” “*That's where ForeFront TM R&P and MILESTONE TM herbicides can help.*”

Up until very recently, and almost universally even now, the same philosophy has been espoused by Extension publications. The 136-page annual **Chemical Weed Control for Field Crops, Pastures, Rangeland, and Noncropland** K-STATE Research and Extension how-to “bible” on the subject targets everything in grasslands under the banner of “weeds and brush.” There is no mention suggesting that it is important to protect native vegetation from the herbicide prescriptions. Every element of native habitat that a wildlife biologist, enthusiast or hunter might consider of value is simply ignored or included in that category. American plum, sand plum, sand sagebrush, sunflowers, ragweeds and goldenrods are simply listed as targets. There isn't any suggestion in the publication that other management practices, mechanical methods including mowing, prescribed burning, patch burning, pasture resting and grazing rotation, or even limiting herbicide applications to focus on “spot spraying” may be more economically and ecologically beneficial. Likewise, there is no mention of any specific broadleaf plants or shrubs of value to livestock, wildlife or for other conservation purposes.

Don't expect to find many *Extension* publications on the value of managing rangelands in a manner that utilizes or maintains the value of native forbs and shrubs for livestock forage, wildlife, pollinators and/or soil fertility, or simply based on the comparative economics (cost savings) of limiting herbicide applications and use of alternative management practices. Regardless of their value, native plant communities do not generate funding for university studies and overhead. However,

some departments in Land Grant Colleges depend heavily on research funding from agricultural chemical companies. Individuals are sometimes faced with *publish or perish*, and university staff either bring in funds or lose their jobs. As with political fundraising, research funds usually come with the expectation that the *vested* corporate interest will be a priority. We documented this principle in the “SILENT SPRING” REVISITED article in the Winter 2012/Spring 2013 issue of *PRAIRIE WINGS* (available on the AOK website).

This potential for corporate influence was highlighted recently when I learned of an exceptional range management researcher who was called to answer to the administration of his university. He published research on the value of forbs in rangeland, and dismissed the value of routine herbicide applications on rangelands during a keynote presentation at a national range management conference! Officials with Dow and DuPont (along with some “ranching interests” they corralled) were quick to contact the university with the suggestion that he was anti-herbicide. As a highly distinguished professor with tenure, he has little to worry about—although a potential funder’s threat of withholding funds for whatever purpose is powerful. For agencies the threat is political. Few academic, agency, publication or even conservation organization personnel are willing to speak up for *natural* resources if it doesn’t follow the money for advertising, funding or political influence. Don’t expect to read about the cost savings of NOT applying herbicides, or the economic value—and forage value—of native forbs in rangelands in agricultural magazines.

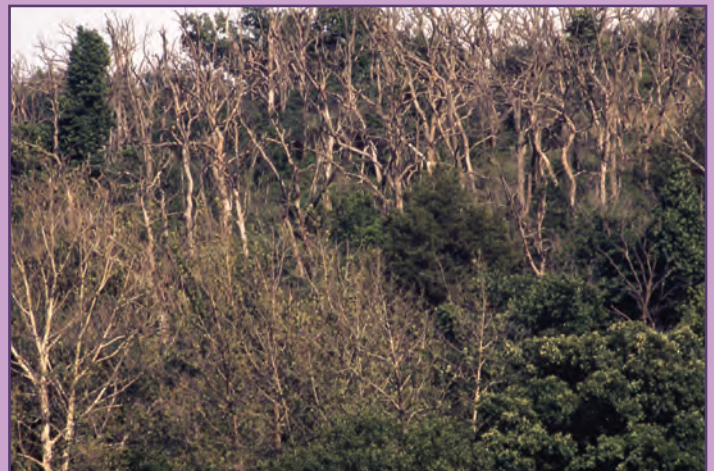
The promotion of herbicides is not unlike that of the effective marketing of **Marlboro** products in decades past. Cigarette ads were designed to make smokers envision themselves as rugged men of the open country. One only needs to view livestock and range publications to appreciate the multi-million dollar promotional advertising devoted to convincing landowners that (1) forbs are weeds and shrubs are brush and all are threatening other resources of value; and (2) herbicides are the logical solution. Herbicide names like Range Star, PastureGard, Plateau, Crossbow, Pathfinder, Cimarron Plus, Remedy Ultra, Redeem, Grazon, Overdrive, Milestone, Sterling Blue and Clarity are designed to sound as natural to the rugged individualist fighting the forces of nature as the image of the Marlboro cowboy.

Little wonder that landowners, especially many who buy rangeland and aren’t well grounded in more holistic and practical management succumb to all the promotion that pays for publications, trickles down through the airwaves, and is brought to them via Extension and USDA agencies. Some men who manage native rangelands for other owners in the Flint Hills refer to themselves as “grass managers.” Some do this without any recognition of the importance of plants other than grasses.

The Summer 2015 edition of **RANGE & PASTURE STEWARD** newsletter published by DOW AgroSciences has an article that highlights the philosophy that they hope to cultivate. Titled, “Cattle business is a learning curve,” a producer is quoted as saying, “*We try to spray everything every year.*” For more information, readers are encouraged to contact their local (DOW) “range and pasture specialist.”

The role of herbicide chemical companies in government programs received its biggest boost when **Operation Ranch Hand** (a military code name) was launched in 1962. Between 1962 and 1971 at least 19 million gallons of herbicides, 11 million of which consisted of Agent Orange (a combination of 2,4,5-T and 2,4-D), were sprayed over 5 million acres of Vietnam/Southeast Asia. It has been speculated that following the herbicidal warfare program our federal government felt obligated to be supportive of the chemical companies with other programs as a way of showing appreciation.

While living in another Flint Hills county in the early 1970s I attended an annual USDA/ASCS dinner and was astounded by the boast that the county committee had cost-shared with federal funds the spraying of 88,000 acres. The ASCS (now FSA) county chairman was a chemical dealer. I had seen and photographed rangelands and gallery oak forests that were sprayed. A small older rancher told me he didn’t want to spray but was encouraged to sign up by the SCS (now NRCS) district conservationist (at a cost to him of only about \$5 per acre) since adjacent rangelands on both sides of his Illinois Creek property were going to be aerially sprayed. He said he regretted it. Dogwood and cedar replaced an oak savanna on the upper slope of the ridge along the stream.



Remains of an oak forest on a steep slope adjacent to a Flint Hills stream in Wabaunsee County that had been sprayed (photo in the early 1970s). The trees along the edge of the stream were not in the pasture and were not directly sprayed.

What about Seeking a Second Opinion?

The best source of good advice are ranchers who are close to their land, don’t want to waste money, and have a sense of pride for quail or prairie-chickens on their land. They are increasingly rare, but we know several.

When it comes to exploring management and other alternatives to herbicide prescriptions, it is not easy to find qualified people in the arena who are not part of the chemical industrial complex with a vested interest in promoting chemical solutions to management challenges. Many others have unwittingly bought into that philosophy which has become embedded in educational institutions, agencies (including

USDA, the Kansas Department of Agriculture and most county *Noxious Weed* departments) along with agricultural organizations invested in agri-chemical companies.

Maybe \$3 Million for Herbicide Applications this Year Alone in Kansas?

For decades the herbicide approach has been coupled with USDA cost-share programs tied to range and pasture management. Tens of millions of dollars in federal funds have been expended for rangeland practices involving herbicide applications in Kansas. Several years ago we started to get more scrutiny of cost-share expenditures for broadcast spraying operations, and wildlife representatives succeeded in redirection of some resources to mechanical control and patch burning. Both were hard sells because the claim was that K-State hadn't done sufficient research to document success for these alternative approaches, and specs weren't written. We continued to push for more accountability on the ecological impacts of broadcast spraying. Then, in 2013 the NRCS State administrator decided to remove "wildlife resources" as a resource of secondary concern that should be considered by NRCS employees when writing plans and ranking cost-share applications involving range—unless wildlife concerns were specifically requested by the producer. The funding is provided as part of the **Environmental Quality Incentive Program** (EQIP). Now, without wildlife resources even being recognized as a resource of secondary importance, and without any transparency, it is difficult to know if *environmental quality* is an objective or if it has been eclipsed by practices with production becoming the only principle objective.

In 2015, NRCS obligated \$3,050,423 in EQIP funds in Kansas for "Brush Management," out of a total of \$3,861,712 allocated for "Grazing Lands Health." We have not been able to get the total paid involving broadcast herbicide applications, but it is likely the lion's share of the \$3 million plus. For those of us involved in conservation for 40 or 50 years, we can remember when USDA/SCS was actively involved in funding destructive programs to drain wetlands and channelize streams. Programs to spray America's rangelands with herbicides is equally destructive to wildlife resources and is a major factor resulting in the precipitous decline in grassland birds, sending some on a path toward threatened and endangered status.

Likewise, the subsidized and often mandated destruction of shrubs in "brushy waterways" when NRCS builds terraces and waterways eliminates vanishing habitat for many other species, including upland game birds. Most wildlife agency biologists are hostage to the system, they cannot speak up—and they remain silent.

***"It is difficult to get a man to understand something, when his salary depends on his not understanding it."* – Upton Sinclair,**

Despair isn't an answer. In fact there have been and are now a few *range ecologists* who recognize that ecological protection and livestock production can be managed in tandem.

One of the most objective and balanced of K-State publications, a four-page flyer with the heading **Rangeland Weed Management** was prepared by Paul D. Ohlenbusch and Gene Towne in 1991. On the subject of herbicides they wrote, "Elimination or large scale reduction of beneficial forbs will reduce (livestock) gains, disturb wildlife habitat, and produce a plant community that has a shortened season of high quality forage." Livestock routinely graze forbs. Native legumes including cat-claw mimosa, partridgepea, leadplant, various prairie-clovers, and Maximilian sunflower have protein contents higher than big bluestem. Many forbs—actually most—are so palatable and preferentially selected by cattle that they are grazed out or at least uncommon in pastures—and only noticeable across the fence in roadsides (assuming they aren't sprayed there by the county noxious weed departments). Maximilian and other sunflowers, Jerusalem artichoke, Canadian goldenrod, compass plant, Illinois bundleflower, roundhead lespedeza, common and butterfly milkweeds are a few of many plants seldom seen in pastures—because they are grazed out by livestock. The authors point out that western ragweed contains



Photos make it possible for us to see the obvious. Many, many native forbs—including butterfly milkweed and Jerusalem artichoke shown in these photos—are sometimes abundant in roadside refugia or meadows adjacent to pastured areas, but scarce in pastures because they are eaten by livestock. They are not weeds in rangelands—or roadsides although some county noxious weed departments spray everything. These photos illustrate roadsides along Highway 177 in Chase County.

20 percent crude protein and is palatable in the early grazing season, but overlook that cattle also relish it in October when seed heads provide a “grain crop.” Even annual forbs that qualify as “weeds” in croplands, such as giant ragweed, pigweeds and curly dock, are highly nutritious, consumed and eliminated by cattle in grazed areas.

Patch Burning with Grazing is Part of the Solution.

In recent years, “heterogeneity” has become a measure for the highest standard of range management. Patch burning and grazing enhances heterogeneity of grasslands. The benefits of patch burning, integrating fire and grazing, have been demonstrated by research conducted by range scientists at Oklahoma State University. Fire and grazing are two disturbance factors that can be utilized to keep biodiversity intact, and patch burning generally eliminates the need for herbicide applications. For more detailed information go to

<http://fireecology.okstate.edu/patch-burning>.

Unfortunately, governmental agencies have long promoted uniform livestock distribution and forage utilization; cost-share programs through USDA have been used to build cross fences, ponds and finance herbicide applications to maximize homogeneous grazing. As promoted in the “GRASS” publication, cattle can be used as “harvesting machines,” not unlike a mower. **With homogeneous grazing, as with annual landscape burning, there are few places with sufficient cover remaining for nesting and brood rearing of Prairie-chickens or Bobwhites.**

Two Diametrically Opposed Threats to Native Tallgrass Prairies/Rangelands

On the subject of shrubs and forbs, there are two common practices that I am inclined to characterize as negligence and brashness that threaten the ecological integrity of native rangelands. Negligence is a failure to recognize that native grasslands can be taken over with woody plants (shrubs and trees) in the absence of effective use of fire, appropriate grazing regimes and/or mechanical/mowing practices and sometimes use of SPOT spraying. True prairies cannot be fenced and totally forgotten now that they are no longer subject to historic fires and the historic benefits of roaming herds of grazers and browsers. Extended overgrazing and an absence of rest is another form of abuse. One of the worst forms of negligence is to let it go to hell (overtaken with far too much woody vegetation) and then with ultimate brashness employ broadcast spraying with wide-spectrum herbicides. Needless spraying of normal native rangeland is another ecological insult, leaving a monoculture not unlike that of fescue, bermuda or bromegrass.

A fescue pasture is a grass monoculture that is essentially devoid of other life, from fireflies and butterflies to birds. Likewise, most of our native flora and fauna are eradicated from prairie rangelands that are repeatedly sprayed with broad-spectrum herbicides. Nowhere is this more apparent than on some of the large ranches in Osage County Oklahoma where herbicides have been repeatedly applied. One can no longer expect to find Prairie-chicken chicks feeding there on insects under a canopy of native forbs.



A wild plum thicket in the Nebraska Sandhills. Plum thickets are among the best "headquarters" habitats for Northern Bobwhites.

Three Species Can Serve as Coal Mine Canaries in Tallgrass Prairie Landscapes: Greater Prairie-chickens, Northern Bobwhites and Fritillary Butterflies.

If a range landowner has a healthy population of Prairie-chickens on his land there are likely differing heights of native vegetation—and a complement of other grassland birds as well. If Northern Bobwhite coveys are present, the property likely has an array of habitat (including forbs and SHRUBS) and other birds. If Fritillary Butterflies are present, it is an indication of reasonably intact remnants of native prairie plant diversity.



A pair of Bobwhites loaf in the protection of a shrub thicket at the Hutton Niobrara Ranch Wildlife Sanctuary, May 2015. The calls of quail and the songs of Western Meadowlarks could be heard throughout the day.

How Can We Make a Difference?

As landowners, those of us who care need to take the needs of wildlife into consideration when designing management strategies. For landowners utilizing patch graze burning systems, one often has to inform the neighbors who may be

accustomed to igniting the entire landscape with annual burns. Audubon of Kansas and the Kansas Wildlife Federation need other organizations to step up in the USDA/NRCS State Technical Committee to argue for more—much more—ecologically beneficial and far, far less funding of destructive

practices under the *ENVIRONMENTAL QUALITY* Incentive Program involving \$20 million in taxpayer dollars. Residents also need to express their concerns about indiscriminant roadside herbicide spraying to their county commissioners. Insist on better stewardship of public resources—financial and land.

To highlight a thought in the Foreword to the book, **BEEF, BRUSH, and BOBWHITES: Quail Management in Cattle Country**, we share this text:

“...no less important is the whispering call of a covey of bobwhites, or the absence thereof, to remind me that wildlife and habitat conservation is directly proportional to the quality of stewardship that we bestow on the land.”

• • •

HUNTING—Hunting for a Conservation Organization to Support?

Audubon of Kansas is an Excellent Choice for Hunters and Non-hunters Alike!

Audubon of Kansas (AOK) works tirelessly to promote habitat conservation critical for both nongame and game species. Preserving biodiversity is not only A-Okay, it is a vital pillar of good stewardship; and it is a priority for AOK throughout the central Great Plains landscape. We work with landowners, and for sound governmental wildlife policies. *AOK is a voice for wildlife, and an ever-present advocate of prairie conservation.*



Please send memberships to the address listed on page 1 or join online. Audubon of Kansas is a nonprofit 501(c)3 organization. www.audubonofkansas.org

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Snapshots of a Prairie Before and After Application of a Cocktail of Herbicides

June 2009



July 2014

A Mount Mitchell Heritage Prairie Update, and a Restoration Challenge

Our friends, Ed and Seliesa Pembleton were leading a NATURALIST JOURNEYS tour to Kansas prairies in 2009. One of the last stops was Mt. Mitchell. They were impressed, and Ed proclaimed that:

“The Mt. Mitchell Heritage Prairie Preserve has the most diverse flora of any prairie that we have visited in the Flint Hills.”

A brief article that appeared in the Spring/Summer 2014 edition of *PRAIRIE WINGS* read as follows:

“Audubon of Kansas wildlife sanctuaries are designed to combine conservation of treasured natural areas and demonstration of management and stewardship, with opportunities for nature appreciation. The wildflowers, native grasses, birds and other wildlife provide a glimpse of the diversity of life that exists within pristine prairie plant communities. Although the sanctuary is only 47 acres, the 32 acres that were previously held by the Kansas Historic Society are viewed as one of the best examples of native prairie in the northern Flint Hills. AOK acquired the additional 15 acres to encompass the entire prominent hill and to provide better access.

Most other prairie remnants have been mowed annually, and tragically many have been sprayed with herbicides to eliminate “weeds” from the hay. Everything except grasses are regarded by many people as weeds! The same approach is often taken with native rangelands. Livestock grazing often eliminates some of the species and changes the composition to those that best tolerate grazing.

Mt. Mitchell is located three miles south of Wamego and it is jointly managed with the Mt. Mitchell Prairie Guards. The Guards have provided leadership for interpretation of cultural history—especially relating to the struggle to make Kansas a Free State and the thread of the Underground Railroad through this area—and made major improvements to enhance the visitation experience.”

The foremost objective of AOK has been to preserve the biological diversity of the prairie, and to use it as an educational resource to instill appreciation for, and an understanding of, the importance of protecting prairie flora and fauna. Prairie flora consists primarily of grasses, sedges, forbs and shrubs. Collectively, this array of plants and the soil beneath support an astounding diversity of invertebrates, which in turn (along with plants seeds and fruits) provide food for birds, reptiles, amphibians and mammals. Additional articles in this edition of *PRAIRIE WINGS* expand on the value of shrubs and forbs for birds as habitat and the importance of forbs for beneficial pollinating insects and hummingbirds.

The concept of joint management that AOK celebrated requires a joint vision to assure success, along with collaboration. Unfortunately, to the astonishment and disappointment of AOK staff and Trustees, it was discovered during the 2014 Independence Day weekend that the Mt. Mitchell prairie had just been sprayed with a cocktail of herbicides. Although it was suggested by an individual

responsible that the intent was to “spot spray” the dogwood and other woody thickets to get rid of them and keep them from expanding, it became evident that 80 percent of the property had been sprayed. This was obvious from all sides, including from Highway 99 a half mile to the west. A few months earlier one of the same individuals insisted that they should take complete control and AOK should relinquish ownership! That would have been a mistake on our part.

Although the view of AOK was that this unexpected action was “unauthorized and destructive,” it was argued by the proponent(s) of the spraying that it was “needed and beneficial” to make it a suitable “park.” One individual argued that it shouldn’t be a preserve or a sanctuary with islands of shrubs. The AOK view is that it is best when it is both—a natural prairie and a place where people can appreciate both nature and the historical heritage of the area. Natural “islands of shrubs” have provided nesting habitat for Bell’s Vireos and other species.

A survey, commissioned by AOK and conducted by a native-plant authority in the weeks that followed the spraying, determined that many broadleaf plants, including a number of the fifteen “high conservative species” found on the property, were killed or severely damaged. The same is true for 71 “medium conservative species.” This high number of conservative species on the property indicated that it is a highly intact plant community. Among the most obvious changes noted this year were the dramatic reduction in abundance of wild prairie rose, leadplant and Missouri primrose.

Herbicide spraying opens up voids within the prairie and they can become portals for invasive species, such as Caucasian Bluestem. The voids were substantially filled this year by annual sunflowers and ragweeds. Over time these early successional annuals will be replaced by native perennials, hopefully not just grasses but rather a complement of forbs and shrubs.

Going forward, our plan is for AOK to be exclusively responsible for stewardship of the flora and fauna. We remain receptive to partnerships in other aspects of outreach and maintenance of the trails, conditioned on a formal memorandum of agreement.

In late March we conducted a controlled burn to remove excess residual grass cover from the previous two years and dead plant material resulting from the spraying. Fortunately the residual grass present in 2014 helped to shield some of the smaller forbs from the full killing impact of the herbicides. This year’s early spring burn improved conditions for regeneration of forbs that survived and for seed germination within open areas. Spring and summer rains were beneficial. Prescribed burning will be utilized again in early spring 2016. If we have a problem with too much woody cover of large shrubs or trees in the future, we will effectively utilize mechanical control. Meanwhile the prairie remains spectacular, and with careful management we trust it will be almost completely restored with a measure of time.

Outrageous Speculation

Article by Bill Browning

Sometimes a spectacle of nature can jolt one to a revelation that might otherwise be inaccessible.

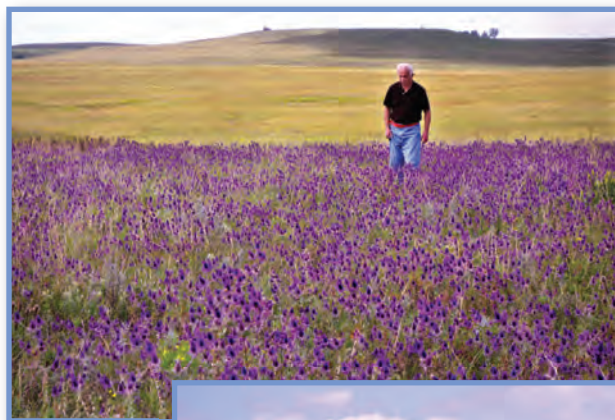
Fifteen years ago I was driving across one of our pastures with a US Fish & Wildlife Service biologist who remarked about the abundance of goldenrod (*Solidago rigida*, in this case), implying that it was excessive, causing me to suspect that chronic overgrazing was reflected in the weedy appearance of the area. Although the recent history of the pasture has been moderate stocking rates, I have some old photos of my grandfather around 1912 – pictures of him on horseback in that vicinity – and invariably the horses' hooves are mostly visible, indicating very short grass. The condition of the ironweed in one photo suggests high summer. Both, the very short forage and the ironweed, would be evidence of overuse.

Also in that part of the pasture is a persistent infestation of *Sericea lespedeza*, so I am in the vicinity frequently to address that problem with spot spraying. So as the goldenrod approached blooming this year I was very aware of it and encouraged my sister, who is quite a photographer, to come out and capture its spectacle and a nearby large patch of Leavenworth Eryngo. When she arrived for her photos on September 21, she acquired quality shots of both species. But, I was noticing among those blooms, as I had been noticing elsewhere in the previous days, the striking absence of monarch butterflies, whose migration was due to peak shortly.

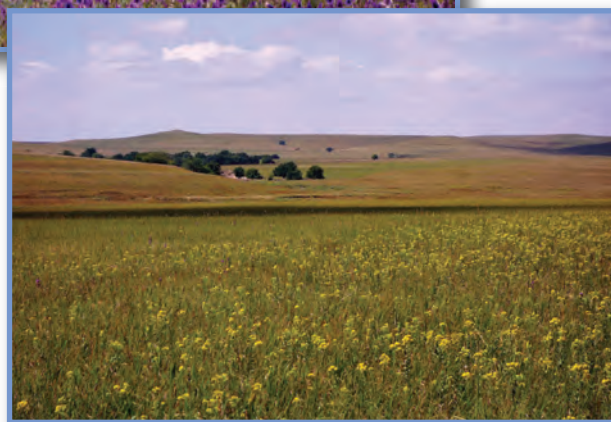
A week later I returned suspecting that the goldenrod would be in decline. It was not. And although I was seeing few monarchs at home and elsewhere, they were abundant in that part of the pasture. At that point I began to really take stock of the goldenrod situation. It was a dominant plant in prominent patches, some numbering only a few dozen plants but others from one to more than five acres in extent. The layout of the

patches was such that an area a mile east and west and up to one half mile north and south was involved – perhaps 200 acres. In fact, the intensity of the blooming flowers was so pervasive in the region that I was later able to appreciate a golden glow across the area from a high ridge top one mile to the west – a view that was made more remarkable with good binoculars. All this was amidst a big pasture where miles of cross fencing had been removed. The perimeter of the patches did not correspond to any fences past or present. Had it done so, overgrazing in one pasture might have been implicated, but in fact it was in what had previously been four different pastures. Only the east fence, where the patches abruptly terminated, seemed to affect it. There a neighbor had boom sprayed his side of the fence with 2-4D thirty years ago, apparently lopping off that end of the reach of the patches.

O.J. Reichman in his 1987 book *Konza Prairie* first awakened me to the idea of patches in the prairie. In his words, “a group of indistinguishable individuals forming monotonous populations,” is how many of us view the prairie. In fact I recall that it was once a goal of mine that our ranch would look that way: grass, grass and more grass. Reichman wrote that “close inspection reveals that [the prairie is] composed of small-to-medium patches...and the heterogeneity they engender are where the action takes place on the tallgrass prairie.” I have slowly come to accept this and with some struggle and imagination have



Photos by Susan Pogany





begun to see that our ranch lies within a much larger area of abundant wild quinine (*Parthenium integrifolium*) – absent from much of the Flint Hills and Osage cuestas – and at the western terminus of a large extent of wild licorice (*Glycyrrhiza lepidota*). Within the ranch are patches of wild hyacinth (*Camassia scilloides*), fall blooming pink wild onion (*Allium stellatum*), strips of Downy Gentian (*Gentiana puberlenta*), colonies of Sullivan’s Milkweed (*Asclepias sullivantii*) and only one 15 ft diameter patch of slender mountain mint (*Pycnanthemum tennifolium*). And these are just a few examples.

Now back to September 28. I began arcing through the goldenrod patches on my four-wheeler, counting monarchs as they flushed off the flowers. I quit at 250 and estimated that I had surveyed about 10% of the area. Much relieved about the butterflies’ plight, I returned home. Not until the following day did I start to see the full force of the monarch migration, as they winged south across all the roads and prairies west of Madison, KS.

I began to ponder all this and I began to surmise. Those goldenrods were not weeds caused by overgrazing the last 150 years. They are an ancient community. Monarchs have been chowing down on them for centuries. But how did thousands of them accumulate there over a period of seven days when there were hardly any others in the vicinity?

A week later I was back at the Sericea. The monarchs were still there, widely scattered but just as abundant. On a rocky ledge, goldenrods, on thin soil, seemed to be particularly succulent, and



Photos by
William Browning

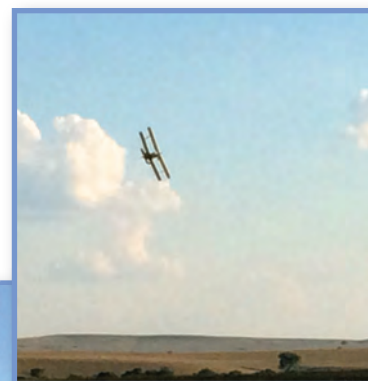


thirty or forty butterflies flew up as I approached. I returned to show the concentration to my wife and son late that afternoon for some grand photos. Suddenly a bi-plane appeared and began spewing what I presumed was Escort herbicide (metsulfuron methyl) across a neighbor’s pasture to our west, not the first time that has happened there. Sometimes the Sericea is so bad that such an action is about the only practical response. But that pasture seems particularly bereft of the forbs that might feed fall-migrating monarchs.

More and more pastures are being boom sprayed or aerial sprayed in the fall for Sericea with collateral damage to fall blooming plants. (Indeed, the Escort label indicates activity against goldenrods and asters.) And another grimmer practice is the spraying of entire pastures in spring or early summer with more potent herbicides that kill everything but the grass (man’s money maker), leaving little to nothing for the rest of creation.

There is great concern that our monarchs will disappear as their hibernation grove in Mexico is converted to fire wood and the critical food plants for their larvae – the milkweeds – succumb to row crops and ubiquitous herbicides. Will a third threat be loss of the fall flowering plants that power their migration and imbue them with the health they need to overwinter?

And finally, if they have an internal guidance system that leads them to that grove in Mexico, does another part of it lead a subset of them to those ancient patches of goldenrod southwest of my house? You can bet those plants are safe with me.



An Overview of Insect Pollinators in the Landscape

Articles by Dick Seaton

What would life be like without butterflies and bees? We may find out, if current trends continue. Monarch butterflies have diminished by 90% in North America. There were perhaps a half billion in the mid-1990's. Now that number is about 33 million. In central Mexico where they overwinter, their colonies now cover only 1.7 acres, compared with 44.9 acres in 1996-1997. Other butterflies are also declining in North America.

It's a similar story for bees. The Xerces Society for Invertebrate Conservation estimates that about one-third of all bumble bee species in North America are of "serious conservation concern." Fifty thousand bumble bees died recently in one suburban Oregon parking lot, after ingesting nectar from insecticide-treated linden trees. The number of winter-managed commercial beehives has dropped 30% in the past five years.

Pollination is of immense value to agriculture and home gardeners, but how does it actually work? Most of the labor is done by insects. They carry pollen grains from the male part of a flower (the anther) to the female part (the stigma), thus enabling fertilization and reproduction. They do this while feeding on pollen, or on plant parts or plant nectar. The pollen adheres to the insect's body parts, and is transferred almost incidentally. Lucky for us that it is! According to the American Institute of Biological Sciences, native insect pollination produces \$40 billion worth of products per year in this country alone.

Commercial beekeepers imitate combine wheat harvesters, following the agricultural bloom from south to north, thus providing pollinators for a whole variety of crops. One million hives are trucked to the California almond groves every spring. In New York 30,000 are used in the apple orchards; and Maine's blueberries require about 50,000 per year.

Of course, managed beehives serve monoculture farms and orchards, but large single crop fields are one factor in the decline of native bees and butterflies. Chip Taylor, a monarch expert at the University of Kansas, estimates we have lost an area the size of Indiana to cropland conversion just in the last ten years.

This phenomenon is surely driven, in part at least, by the ethanol craze. And those thirsty cornfields are planted with "roundup-ready" seed, so spraying eliminates the milkweed between rows, on which monarchs must depend. The caterpillars feed exclusively on various milkweed species and the adults drink the nectar.

Bees and butterflies also depend on native plants, which are eliminated by loss of natural landscapes to urban and suburban development and excessive roadside mowing and herbicide spraying. They need a place to nest, and flowers to forage on. When these are gone, the pollinators suffer. So do many farmers, who lose their pollinating benefits.

Another prime suspect in the decline of pollinators is a new class of chemicals called neonicotinoids. They constitute the principal killing agent in almost all popular garden insect sprays. Several are highly toxic to honeybees and bumblebees. They can persist in the soil, and thus be absorbed by untreated plants the next year. That Oregon bee kill was directly traced to insecticide containing neonicotinoid. The International Union for Conservation of Nature points to them as key factors in pollinator decline.

So what are we doing on the positive side to restore pollinators? Close to home,



Valerie Wright Photo



“The beauty of a butterfly’s wing is not a slave of purpose.”

— Donald Peattie



Valerie Wright Photos



at the University of Kansas, there is Monarch Watch, led by Professor Chip Taylor. It is an educational outreach program involving over 2,000 schools, nature centers and the like in the U.S. and Canada. Its website (www.monarchwatch.org) estimates that over 100,000 people participate in tagging monarchs each fall before the butterflies leave for Mexico.

Monarch Watch also sells and distributes thousands of milkweed plugs each spring and fall for planting by citizens in their yards and gardens. Since milkweed is essential to the survival of the monarch, its disappearance is an important factor in the butterfly’s decline. (Interestingly, most species of milkweed are toxic to vertebrate herbivores, so when monarch larvae ingest it they also take in the toxins, which are then sequestered in their bodies to make monarchs toxic to many predators. As a result, most birds avoid them when eating other insect prey.) Find out which species of wildflowers and milkweeds are native to your area. Orders for plugs can be emailed to milkweed@monarchwatch.org. Another source of information about milkweed seed sources is www.xerces.org/milkweed-seed-finder.

Similar efforts are underway to restore bee numbers. Chief among these is the planting of native shrub hedgerows and

wildflower mixes alongside and between farm fields. The Xerces Society attempts to do this by partnering with USDA’s Natural Resources Conservation Service, which helps farmers with the cost. Audubon of Kansas will be doing the same thing at its Connie Achterberg Wildlife Demonstration Farm in Lincoln County. The flowers to be planted will differ from one region of the country to another, but often include coneflower, beebalm, many species of milkweed, lupine, aster and goldenrod.

Even President Obama has gotten into the act. On June 20 of 2014, he issued a presidential memorandum creating a Pollinator Health Task Force. It is intended to expand federal efforts to reverse pollinator decline, and requires that a national pollinator health strategy be developed. Among other steps, it calls for increases in pollinator habitat along highways, and reduction of pesticide use on military bases. Importantly, it directs the EPA to assess the effects of neonicotinoids on the health of bees and other pollinators.

Perhaps we are finally beginning to realize what Rachel Carson said over 50 years ago in *Silent Spring*: “Nature has introduced great variety into the landscape, but man has displayed a passion for simplifying it. Thus he undoes the built-in checks and balances by which nature holds the species within bounds.”

At Home With Pollinators, A Gardener's View

By Mary Powell

Springtime! You're ready to fill containers at your front door or on your deck. Or maybe you're planting a vegetable garden. Or your new home needs landscaping.

You drive to your favorite garden store or nursery to look for flower and vegetable seedlings, shrubs or trees. You find tomatoes, parsley, peppers and two rose bushes for that sunny spot off the patio.

And because you've heard that bees are in trouble, you make sure to include some bee-friendly salvia and sunflowers.

Caveat Emptor! Buyer Beware! Those plants have been pre-treated with a nicotine-based pesticide highly toxic to bees and other pollinating insects. There is no way for you to know because the label says nothing about this treatment. In fact, the tag on the plant may even say "bee-friendly" or "attracts butterflies and bees" and include a smiling bee.

Big-box stores and many local nurseries now use a long-acting pesticide, neonicotinoid, as a soil drench, which is taken up systemically in the plants' vascular system, making all parts poisonous—leaves, pollen and nectar. Neonics, as they are called, can kill bees. In a sub-lethal dose, this neurotoxin can impair their navigation, immunity, and learning. Hives are found empty. Bees can't find their way home.

In 2013, plants across the country were tested in an independent lab and results were published in August of 2014.

Here are some of the documented findings:

1. One application to plants lasts beyond a season. Measurable levels of residues were found in woody plants up to 5 years later.
2. Untreated plants can absorb residues from the soil where treated plants previously grew.
3. Neonics are toxic to all bees, commercially raised honeybees and native bees.

And you face another problem at the store. Many plants come from other countries. They are often the ones we grew to love at grandma's house—the iris or the peonies. The Japanese crab, flowering Dogwood or the English yew. Their neat foliage provides anchors to our landscapes and need little care. But these exotics are not native to North America and did not evolve for millennia alongside this continent's insects. They

"Do your little bit of good where you are; it's those little bits of good put together that overwhelm the world."

— Archbishop Desmond Tutu



Mary Powell harvesting vegetables from her garden. On September 23 she wrote an email with current news of the pollinators in her yard in Topeka: "Some thirsty migrating Monarchs on our Asters, zinnias and tropical milkweed! Bees on hyssop, oregano, basil blossoms, goldenrod, rose verbena. Hope you're seeing some too. We have too much shade but although not perfect, providing some energy sources. We can help by Planting milkweed. Planting nectar sources."

provide no foliage for baby caterpillars to eat or flowers with nectar for our butterflies to drink. No pollen for bees to take back to the hive to feed their young.

Your neighborhood, like others, used to be a prairie or woodland with acres of wildflowers, shrubs, vines and native grasses—a diverse habitat of plants, insects, birds and other wildlife. But now, your yard is likely a green expanse of an alien grass which depends upon herbicides, pesticides, fungicides, high-nitrogen fertilizer, frequent irrigation and manicuring with noisy, polluting fossil fuel-powered machines designed to mow, remove clippings, blow or vacuum leaves, and aerate soil in the absence of earthworms.

Instead of edging our lawns with rare plants from Asia, we need to bring back the native trees, shrubs and perennials. Do we need those scentless easy-care roses which pollinators fly right by? Or pear trees manipulated to be fruitless with shiny leaves that butterflies ignore?

Or can we start to think of our land, yards and gardens as edible landscapes? A wildlife banquet of leaves, such as a black willow or spicebush for the Eastern Tiger Swallowtail. Or a variety of pollen/nectar-rich colorful flowers for our native bees, butterflies and hummingbirds? Not a sterile quiet landscape; but places that vibrate and hum with life! Plant to feed our hard working pollinator friends in the growing season. And protect

them in the winter by leaving them alone. Don't rake up the chrysalis sleeping in the leaf litter at the base of that hackberry tree.

Native flora restores the bottom of the food chain—food that insects need to eat and thrive. Plant it and they will come. And our beloved birds will follow. We can all make a difference in restoring our battered ecosystem and support biodiversity in the Midwest and beyond.

How can you help?

1. Plant natives — a variety of flowering plants for nectar, pollen, seeds, and leaves.
 - a) If your house stands next to a field, convert an acre or two —or more—to native wildflowers.
 - b) Encourage businesses and industrial parks to keep prairie landscapes intact or include native plants in landscape plans.
 - c) Partner with state and county agencies about best mowing and spraying practices. AOK has worked for years to change mowing habits along roadsides, which can showcase 150,000 acres of grassland beauty along state highways in Kansas alone.
2. Avoid unnecessarily using pesticides, herbicides, treated seeds and plants.

- a) Be discerning where you buy flower starts.
- b) Make sure they are third-party certified organic or untreated. (99% of GMO corn, soybeans and canola are treated with neonics).
- c) Nurseries that specialize in native plants generally do not sell treated plants and seeds.

3. Assist native bees—bumblebees, blue orchard, mason, etc.— by providing areas of sunny bare soil for nesting. Avoid mulching everywhere. Leave hollow plant stalks for them to overwinter eggs.

4. Avoid flowers with double blooms that have little or no pollen or nectar.

As more and more prairie habitat gets sprayed with herbicides or falls under the plow for cultivated crops, shopping malls and other development, what we grow on our land, in our yards and gardens makes all the difference.

As Douglas Tallamy said in *Bringing Nature Home*, “Like it or not, gardeners have become important players in the management of our nation’s wildlife.”

Photos by Dr. Ben Franklin



***“To cherish
what remains
of the Earth
and to foster
its renewal is
our only
legitimate
hope of
survival.”***

— Wendell Berry



CONSERVATION BECOMES A WAY OF LIFE

By Ryan Klataske

As Richard Louv, author of *Last Child in the Woods*, has eloquently argued, direct exposure to the natural world at an early age can be a life-changing experience, with important implications for the individuals we become. This experience can also instill lasting appreciation and curiosity for nature, along with an important perspective on our relationship with our environment and the need for conservation. Some of my

first memories involve walks in a prairie pasture near my home, tucked into a backpack from which I could gaze out over my father's shoulders. I remember the simple joys of pulling golden Indiangrass seeds from their stalks or watching silky milkweed fly into the wind.

Outdoor experiences and conservation advocacy were an integral part of

my everyday life. I traveled often, and most of these travels emerged from my father's involvement in environmental conservation campaigns throughout the Great Plains. For much of my childhood, my father, Ron Klataske, worked as the West Central Regional Vice President for the National Audubon Society. After this, he partnered with local Audubon chapter leaders to form Audubon of Kansas, an autonomous non-profit organization. This article is, in large part, an attempt to provide a brief historical sketch of my father's conservation initiatives, focusing primarily on campaigns for the protection of prairie and rivers during the 1970s, '80s, and '90s. It also shares some of my experiences along the way.

*Everybody needs beauty as well
as bread, places to play in and pray
in, where Nature may heal and
cheer and give strength to body and
soul alike.*

~John Muir

The Niobrara River

One of the places on this Earth I cherish most is the Niobrara River Valley in northern Nebraska. I spent considerable time here as a kid while my father worked on a campaign to defeat a dam proposal and win scenic river protection under the 1968 National Wild and Scenic Rivers Act. We often stayed with Niobrara valley ranchers Franklin and Lillie Egelhoff, where I loved to climb and search for dinosaur bones in the steep sandy banks by their house, nestled in a shady grove of trees. Near the gate in the wire fence that surrounded their home stood a towering mountain of shed deer antlers that Franklin collected off the ranch over the years.

If this campaign to defeat the proposed Norden Dam and win national scenic river designation hadn't succeeded, Franklin and Lillie's home and ranchland would have been lost, inundated in the bottom of a reservoir. The U.S. Bureau of Reclamation planned to condemn 30,000 acres.



The Niobrara River valley is truly spectacular, as illustrated by this aerial photo of the Hutton Niobrara Ranch Wildlife Sanctuary. This section is wide and shallow, better for roosting sites for Whooping Cranes in migration, and for wading, than for canoeing as is popular within the 25-mile stretch east of Valentine.

Save the Niobrara River Association, joined by the National Audubon Society and other organizations constituted the driving force in defeat of the dam. During this campaign, my father developed a proposal—in collaboration with landowners—to designate a 76-mile stretch of the Niobrara as a National Scenic River. This legislation passed in May 1991. Throughout my adult life, I've continued to return to the Niobrara River, although Franklin and Lillie have since passed. In recent years, I've traveled there with friends and family, and I've also had the opportunity to work with my father on the development of the Hutton Niobrara Ranch Wildlife Sanctuary along the river as a model for sustainable ranch management and nature-based tourism.



The Platte River

One of the events I most looked forward to every year was the annual Spring River Conference in Kearney, Nebraska (now titled Audubon's Nebraska Crane Festival), founded by my father and organized by the regional office of the National Audubon Society for the first 25 years. Every March, hundreds of wildlife enthusiasts attended from across the country. Many returned as regularly as the thousands of Sandhill Cranes that congregate here during their spring migration. Field trips provided opportunities for participants—and their children—to explore the Platte River and witness the spectacle of Sandhill Cranes. An epicenter for the dawn and sunset flights of cranes to and from the river was the Lillian Annette Rowe Wildlife Sanctuary, which my father worked with landowners along the river to establish in 1974. This conference also served as an effective instrument for advocating protection of Platte River flows from numerous dam and diversion schemes, as well as protection of the Niobrara.

As a kid, the annual Spring River Conference was a time to connect with friends, to make new ones, and to explore outdoors. These excursions, along with other nature-based youth activities including the dissection of owl pellets and the microscopic investigation of river water, were organized by Kansan Tom Wolf. The welcoming and family-oriented atmosphere of the conference also encouraged me to commandeer my father's microphone during formal dinners to discuss dinosaurs and tell jokes to the crowd. Throughout my childhood, the people that attended this and other Audubon events were more than just familiar faces. Many became close family friends, part of a broader "Audubon family" that remains important in my life today.

Manhattan Linear Trail

The uncertainty before my birth in November 1983 kept my father close to home that summer. In addition to caring for my mother during her at-risk pregnancy, he used this time as an opportunity to propose and work toward the establishment of a trail system in Manhattan. His idea involved using the top of the flood control levee along the Big Blue River, Kaw River, and Wildcat Creek, and to connect this with the soon-to-be abandoned Rock Island Railroad. Previously, in 1971, he successfully proposed a similar trail system along a levee in north Lawrence. City officials and the U.S. Corps of Engineers almost immediately endorsed that project.

The project in Manhattan, however, was a race against time. He faced opposition from the City's public works administrator who claimed that the trail around the city park was sufficient for the community. While stalled by this opposition, he discovered that unknown individuals began dismantling the historic railroad bridges for scrap. This threat helped motivate the city council to keep the option of a trail alive. With a dedicated team of Audubon enthusiasts, my father and supporters overcame these obstacles. "No Trespassing" signs threatening \$100 fines came down and, eventually, an eight-mile stretch of trail was established as part of a voter-approved parks funding program. The Linear Park has become an important recreational resource, passing along the rivers and riparian forest. Growing up, my family enjoyed the trail for hiking and biking, and my siblings and I would often explore among the trees. For my father, the year of my birth presented an opportunity to focus his efforts near our home. The result was Manhattan's Linear Trail, which I take pride in knowing that my friends—and many others—enjoy with their children and families as well.

Barnard Ranch: the Tallgrass Prairie Preserve in Oklahoma

In 1984, my father learned that the trustee of the 30,000-acre Barnard Ranch in Osage County, Oklahoma was considering selling the property. The best way to establish a Tallgrass Prairie National Preserve, my father believed, was to propose purchase of



The Scissor-tailed Flycatcher is the state bird of Oklahoma. Found in south-central grasslands and open shrubby country during the summer. They often wait on a perch and then fly out to catch insects in flight—a feeding strategy referred to as hawking.

Photo provided by Jay Dee Miller ©

a suitable property on a willing-seller, willing-buyer basis. This stood in contrast to proposals and large-scale acquisitions in previous decades that threatened use of eminent domain. Working closely with the trustee, my father initiated a multi-year campaign to build local, regional, and national support. He helped organize regional Audubon and prairie conferences in Pawhuska and Tulsa; increased public interest emerged from tours of the prairie. Support among members of the Oklahoma congressional delegation began to grow, but progress of negotiations proceeded sporadically due to conflicting strategies among other conservation and environmental organizations. According to my father, after reaching a tentative endorsement from all members of the congressional delegation, the promise of consensus was "torpedoed" by one of these groups. In its prominent magazine, the organization declared that it was asking all members to demand the curtailment of oil and gas operations on the ranch, a demand that threatened the mineral estate of the Osage Nation. As a result, the proposal to establish a unit of the National Park system based on the willing-seller, willing-buyer acquisition of the Barnard Ranch (and possibly the adjacent Chapman Ranch) appeared "dead in the water."

Later, with the leadership and fundraising commitment of Joe Williams, CEO of the Williams Companies, an alternative conservation plan emerged. The ranch was acquired in 1989 and The Nature Conservancy became the beneficiary. After years of effort, collaboration among stakeholders, and the involvement of new partners, the Barnard Ranch now forms part of the 39,000-acre

Tallgrass Prairie Preserve in Oklahoma. It has become a model for research and management utilizing a "patch-burn" approach to prescribed burning and grazing with around 2,500 free-roaming Bison.

Z-Bar Ranch: the Tallgrass Prairie National Preserve in Kansas

I have fond memories as a child exploring the Z-Bar Ranch with my father, located in the heart of the Flint Hills. In particular, I remember searching for lizards and other reptiles around rock outcrops in the prairie, as well as exploring the cool, dark depths of the historic barn. These memories form part of my experience of his effort to create the Tallgrass Prairie National Preserve in Kansas with the acquisition of this 10,890-acre ranch in Chase County. A photograph in a 1989 New York Times article on the issue captured the two of us walking along a road on the property near the historic one-room Fox Creek schoolhouse. After many unexpected turns, this proposal to acquire the Z-Bar Ranch and create a tallgrass prairie unit of the National Park Service eventually passed Congress in 1996.

It began in 1986 when a ranch realtor, Doug Wildin, contacted my father, Wildin was aware of his commitment to a willing-seller, willing-buyer approach. The realtor asked him if he wanted to tour a piece of land worthy of preservation. Not knowing where they would go after their meeting in a Strong City truck stop, my father

THE NEW YORK TIMES NATIONAL WEDNESDAY, FEBRUARY 8, 1989

Strong City Journal

Stampede Is Feared On Range

By WILLIAM ROBBINS

Special to The New York Times

STRONG CITY, Kan., Feb. 1 — The Z Bar Ranch is a vast stillness of hills, valleys and tree-lined creeks where hardly a sign of human beings intrudes. A ranch house of native limestone is tucked behind a hill, and on a far rim, a few horses graze, small brown shapes outlined against the sky.

It is a scene of ranchland tranquility that few visitors to the Kansas prairie are privileged to enter, but its isolation is destined to end soon if the National Audubon Society has its way. The society, which has obtained an option to buy the property, wants it opened up to tourists as a combination wildlife preserve and working model of a historic ranch.

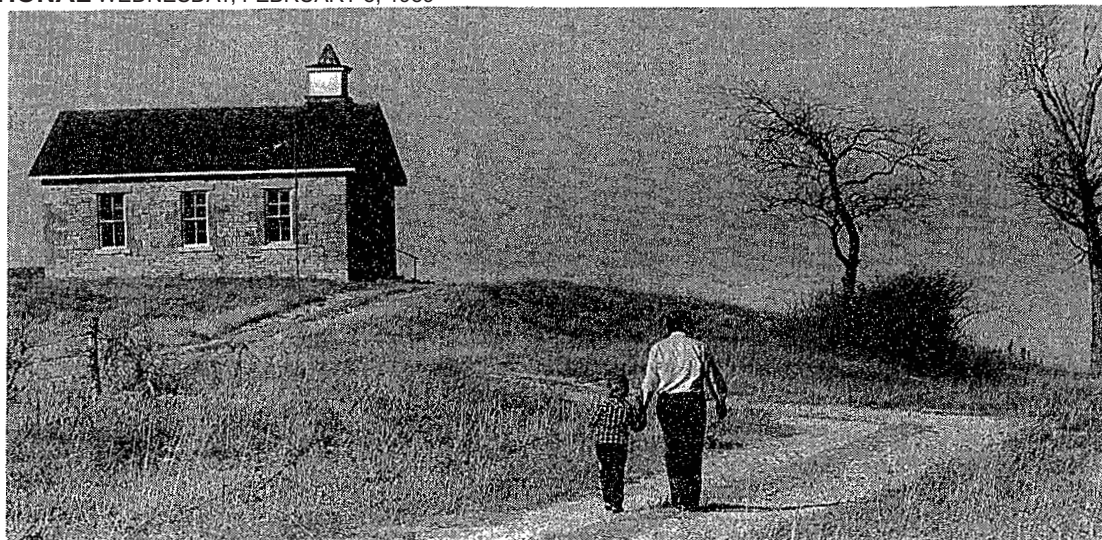
But first, it seems, the society must reconcile enthusiastic townspeople and worried ranchers.

The Z Bar borders on Strong City, a town of 640 people with a Main Street of Western-style buildings and with a stadium for an annual rodeo that attracts up to 30,000 people.

The town and ranch are on the eastern edge of a vast region somewhat inappropriately called Flint Hills. It is a region of rare beauty reaching down through east-central Kansas and into Oklahoma. Its thin sod, freckled with outcroppings of limestone, supports virgin prairie grasses and a host of wild flowers.

The ranch, covering nearly 17 square miles, was assembled by Stephen F. Jones, a pioneer cattleman who came to the area about 1880 and in 1881 built a three-story ranch house, a massive limestone barn and other farm structures. In 1882 he added a one-room schoolhouse. Both the ranch house and the barn are now registered national landmarks.

The ranch is now leased to a local cattleman by a Kansas City, Mo.,



Ron Klataske walking with his son, Ryan, to the one-room schoolhouse, which is a registered national landmark, on the Z Bar Ranch

near Strong City, Kan. The National Audubon Society wants the ranch opened to tourists as a wildlife preserve and working model of a ranch.

Prairie plan would draw thousands of tourists.

bank from which Ron Klataske, regional vice president of the Audubon Society, has obtained an option to buy for \$4 million.

The society's aim, he explained, is to get Congress to take over the option, buy the property, convert it to a "Flint Hills Prairie National Monument" and turn its operation over to the National Park Service.

As he envisions it, part of the spread would be a working model of an old ranch and part of it a preserve to be stocked with bison, elk and prong-horn antelope. The layout could include hiking and riding trails.

"I see this place being enjoyed not just by hundreds but by hundreds of thousands of Americans," Mr. Klataske said, as in a his station wagon bounced over rocky ruts down to a creekbed lined with cottonwoods and gnarled oaks, where he later knelt over footprints of coyote and deer.

Such a prospect, however, has stirred some controversy. Representative Dan Glickman, a Kansas Democrat, noted the other day. One problem, he and others explained, is that many local ranchers are still angry over a 1977 Congressional proposal for a prairie national park that would have taken over much of their land by condemnation, a proposal that their representatives managed to defeat.

"This could be one of the most American preservation projects in the country," Mr. Glickman said. "The concept is burdened by history, but if we can build a consensus, if we can minimize the personal sensitivity

to it, then this could become one of the most significant natural resource developments in this state in years."

The backers will have no trouble building support among townspeople, as Strong City's Mayor, Larry Bayer, and Marvin Adcock, the owner of The Chase County Leader-News, see it.

"I'd be hard pressed to find anybody in Strong City that's not in favor of it," said Mr. Bayer.

Mr. Adcock agreed. "I'm for it if it's good for business," he said. "And the majority of our business people are totally behind it."

Among ranchers, one moderate is Jeanne Hatcher who, with her husband, Bill, and two sons, Matthew and Gary, runs a ranch that adjoins the Z Bar along a stretch of several miles.

"They say they'll guarantee nobody's land is going to be taken over by eminent domain," Mrs. Hatcher said. "Now, if they'll do what they say

they'll do, I think we'd be selfish not to share what we have here in the Flint Hills with others."

Carol Jory, who has another adjacent ranch, was "more negative." "I'm skeptical about those promises," she said. "Besides, cattle ranching and tourism just don't mix."

Stanley Gibb, her ranch manager, was more emphatic. "We're scared to death of the eminent domain thing," he said of the government's right to take over private land for public use with just compensation.

Mr. Klataske said he was prepared to spend months trying to win a consensus before seeking action in Congress. And if that fails, he said, the Audubon Society could buy the property and run it as it now does many other conservation sanctuaries.

He is confident that won't be necessary, he said, adding, "We just hope we won't continue to be haunted by the ghosts of controversies past."



This photo of the historic ranch house was made in the early '90s prior to establishment of the Preserve. As illustrated by the "open house" tour offered, there was widespread interest in the ranchstead and all of the historic buildings.

*The tenth annual **Symphony in the Flint Hills** was held on the preserve in June 2015. It provided another venue for eight thousand visitors to experience this incredible prairie landscape--and the company of others who enjoy nature and music.*



hoped it would be the Z-Bar Ranch—a ranch with a combination of incredible historic structures and an impressive prairie landscape.

This proved to be the case. Following the dissolution of their cow-calf operation and the auction of machinery, my father worked to gain the trust and confidence of Dudley Alexander—the director of the trust department of Boatmen's First National Bank of Kansas City. Dudley was fiducially responsible for stewardship of Z-Bar properties. He wanted a sound sale, ideally in the public interest. A purchase agreement with the National Audubon Society was approved in 1988. In January 1989, my father organized community meetings in Strong City and a tour to announce the proposal to seek congressional approval for acquisition and designation as a unit of the National Park system.

According to my father, the opposition from the Kansas Farm Bureau and other entities was immediate and intense. Support, however, became strong both locally and statewide. Three members of the Kansas congressional delegation—representatives Dan Glickman, Jan Meyers, and Jim Slattery—put forth and supported legislation. In October 1991, the U.S. House of Representatives passed a bill authorizing the National Park Service (NPS) to acquire the property. Progress in the U.S. Senate appeared implausible with the state's senior senator aligned with the opposition. Senator Nancy Kassebaum, however, was much more receptive and willing to advance the effort if she could overcome key objections. The most strident objection throughout the process revolved around the



Success consists of going from failure to failure without loss of enthusiasm.

~Winston Churchill

federal ownership of land.

This fear of a federal "land grab" and distrust of the environmental community was not entirely unwarranted. Years earlier,

in 1977, a bill introduced in congress would have allowed the Department of the Interior to purchase—through the use of eminent domain—185,000 acres of ranchland twenty-five miles to the southeast of the Z-Bar. This flawed proposal emerged from the advice of an environmental lobbyist in Washington D.C. who recommended that proponents of the bill request three times more land than they expected, or hoped, to receive for the park. My father did not endorse this bill and urged against its introduction. A firestorm of opposition erupted after its introduction, and fear among ranchers persisted for decades. Following this debacle—fueled by a coercive, exclusionary approach to conservation—prospects for a "prairie park" seemed bleak.

In the spring of 1978 my father received a hand written letter from Bill Browning, a Madison-based rural doctor and rancher. Browning expressed his displeasure with this approach, including the condemnation of land and the

disregard for rural livelihoods. This letter arrived shortly before my parents' wedding in 1978. A few days later, my parents' travelled to meet Bill and his wife, Jennifer, on their ranch in the Flint Hills. A long-standing friendship emerged, as well as an alliance to promote the concept of conservation and the creation of a prairie park on a willing-seller basis. My father's proposals involving the Barnard Ranch in Oklahoma and the Z-Bar Ranch in Kansas both reflect this philosophy.

Finally, in 1994, the National Park Trust pledged to raise the funds to purchase and own the Z-Bar Ranch. Then, on the last night of legislative action in the 104th session of Congress in 1996, Senator Kassebaum won authorization of the Tallgrass Prairie National Preserve. This authorization only allowed National Park Service ownership of 180 acres surrounding the historic ranch headquarters. Other compromises in the evolving plan diminished the vision of greater inclusion of native grazers including Bison, Elk, and Pronghorns. The original Audubon proposal also advocated for a focus on the “living history” of early European settlement and ranching, similar to the Grant-Kohrs Ranch National Historic Site in Montana. Although a small Bison herd was established, conventional cattle grazing remains the primary use.

The National Park Trust held title to the ranch from 1994 until February 2005, when it was purchased by the Kansas Park Trust and later conveyed to The Nature Conservancy (TNC). The Nature Conservancy and the National Park Service now cooperatively manage this land. Despite the compromises and contours of this long and hard-fought campaign, the former Z-Bar Ranch in Chase County will continue to preserve and inspire appreciation of prairie, serving as an important educational resource on the ranching heritage of the Flint Hills.

A Second Z-Bar Ranch in the Red Hills

In 1999, my father also received advanced word of the upcoming sale of another Z-Bar Ranch, comprising 32,000 acres in the heart of the unique Red Hills of Barber County. In collaboration with the ranch realtor, he helped seek and facilitate purchase by a conservation-oriented buyer. He immediately contacted the Turner Endangered Species Fund. Turner Ranches purchased the ranch within the year and this privately owned land continues to be substantially devoted to the conservation and management of wildlife including Lesser Prairie-chickens, Golden Eagles, Black-tailed Prairie Dogs and a small remnant herd of Pronghorns.

Dewey Ranch: the Konza Prairie

As the brief histories in this article demonstrate, many of my father’s efforts have involved the cultivation of broad partnerships and the inclusion of multiple stakeholders. He has worked to facilitate conservation through collaboration, laying the foundation for important projects and the stewardship of prairie and wildlife throughout the Great Plains. In 1997, I learned about another significant initiative when my father was awarded a prestigious Chevron Conservation Award at the Smithsonian Institution in Washington D.C. This initiative, as I’ll explain, set the stage for the dramatic enhancement of the Konza Prairie Biological Station near Manhattan. The initial research area began with 916 acres along Interstate 70 in 1971.

During that evening’s award event, Pat Noonan—founder and president of The Conservation Fund, and previously president of TNC from 1973-1980—approached my father and thanked him for

making the initial contact that led to The Nature Conservancy’s acquisition of the 7,220-acre Dewey Ranch in the Flint Hills. When this ranch came up for sale in the early 1970s, my father wrote to TNC through his contact, Dr. E. Raymond Hall, the former director of the Museum of Natural History at the University of Kansas, urging the organization to consider acquisition. Dr. Hall, however, voiced concern that an acquisition by TNC could undermine broader efforts to gain popular support for a tallgrass prairie national park. After consideration, Dr. Hall eventually passed the letter along, and TNC asked my father to obtain the legal description of the property. While gathering these details in the Riley County courthouse, he learned from a report in the Manhattan Mercury that the land had just been sold, purchased for \$125 per acre. It appeared that the window of opportunity had closed.

Undeterred, Pat Noonan—then a vice president of TNC—elected to move forward and pursue purchasing the ranch. A TNC delegation traveled to Kansas and my father escorted them on a flight in a small plane over the property. Several years later, following negotiations with the new landowner, TNC acquired the Dewey Ranch in January 1977. Philanthropist Katharine Ordway provided the funding that helped to make this acquisition possible. Her support also resulted in the purchase of 480 additional acres in 1979, culminating in the 8,616 acres that now form

the Konza Prairie Biological Station. Although the cost of the Dewey Ranch agreement amounted to the equivalent of \$500 per acre, it was a far-sighted investment in prairie conservation, education, and ecological research. The hiking trail on this land has also become an important outdoor recreational resource for the people of Manhattan and visitors.

*UNLESS someone like you cares
a whole awful lot, nothing is going
to get better. It's not.*

~ Dr. Seuss, The Lorax



Neighbors watch controlled burn on Konza. KSU biologists have been conducting long term research on the ecological impacts of burning at various times and intervals.

My Reflections

This is just the beginning of my endeavor to document the history of my father’s conservation efforts. In fact, much remains to be written. I have also chosen to constrain this account to events

prior to 2000—shortly after the formation of Audubon of Kansas—despite his continued campaigns, advocacy, and accomplishments. At some point I hope to return to this more recent history, a period of time in which I have worked closely alongside my father. Fortunately, much more of this history is documented in the pages of *Prairie Wings*. Based on what I've learned in my research and experienced firsthand, the thirty-year period between 1970 and 2000 was a foundational era of prairie conservation in the Great Plains. Non-profit conservation organizations played a pivotal role, but in most cases, successful campaigns emerged from the vision of individual leaders willing to collaborate, public activism, the involvement and support of philanthropists, and in some instances, government agencies and political leaders.

I am incredibly proud of my father's dedication and far-reaching contribution to this process, and in particular, his willingness to fight on the front lines for the rights of landowners like Franklin and Lillie Egelhoff. He has helped to give a voice to local people otherwise overlooked or excluded from participation and decision-making. This inclusive, compassionate approach to conservation, which combines a concern for rural livelihoods with an unwavering commitment to the prairie, rivers, and wildlife of the plains has proved key in his successes. As he has often underscored, however, there was always a wide range of people involved and willing to help make these outcomes possible. Throughout my childhood, I had the opportunity to spend time with many of these people, in many of the remarkable places my father worked. As a kid, tagging along, this seemed like a normal way of life.

In addition to these travels and experiences, including the time I spent playing in the prairie on the Z-Bar Ranch or exploring along the Platte and Niobrara Rivers, many of my outdoor experiences as a child took place on my family's land in the Flint Hills near Manhattan. This land is a reflection of my father's commitment to conservation, as well as the enjoyment our entire family gets from its prairie, woodlands, and wildlife. All of our qualifying cropland has been enrolled in the Conservation Reserve Program (CRP), a program designed to maximize habitat and improve environmental quality. When Kansas authorized conservation easements, my

parents donated the first conservation easement in the Flint Hills to the Kansas Land Trust. They also became the first landowners in Kansas to enroll in the Grassland Reserve Program (GRP) following congressional authorization in the 2002 Farm Bill. Most of the native prairie on our land is now protected with perpetual conservation easements. I grew up exploring and enjoying this prairie, and I took part in these programs by gathering wildflower seeds and planting trees and shrubs along the streams that traverse our land. Along with my younger siblings, Cary and Crystal, I often waded in the streams, caught crawdads, and searched for fossils on the rocky shoals. My family enjoyed picnics, camping, and fishing in farm ponds, along with bonfires under starry summer skies. In the winters, we went sledding, built snow caves, and cut down Christmas trees from the grove of pines my parents planted years before.

Outdoor experiences such as these characterized my childhood. Although my interactions with our natural environment—shaped largely by my travels and involvement in my father's conservation efforts—once seemed ordinary, I can now look back at the extraordinary impact these experiences have had on my life, my

*I think having land and not ruining
it is the most beautiful art that
anybody could ever want to own.*
~Andy Warhol

values, and my interests. This article only begins to tell this story and the interwoven history of my father's work. I grew up as his sidekick, and this remains the same today. Over the past decade, I've continued to travel and work with my father in support of his conservation campaigns and advocacy.

In 2010, he also had the opportunity to join me in Namibia, in



The photo on the right provides a view of our family's rangeland under a GRP conservation easement; appropriate cattle grazing is consistent with the program. The above left photo features a field enrolled in CRP with a rich diversity of native grasses and wildflowers, including cup plant in full bloom.

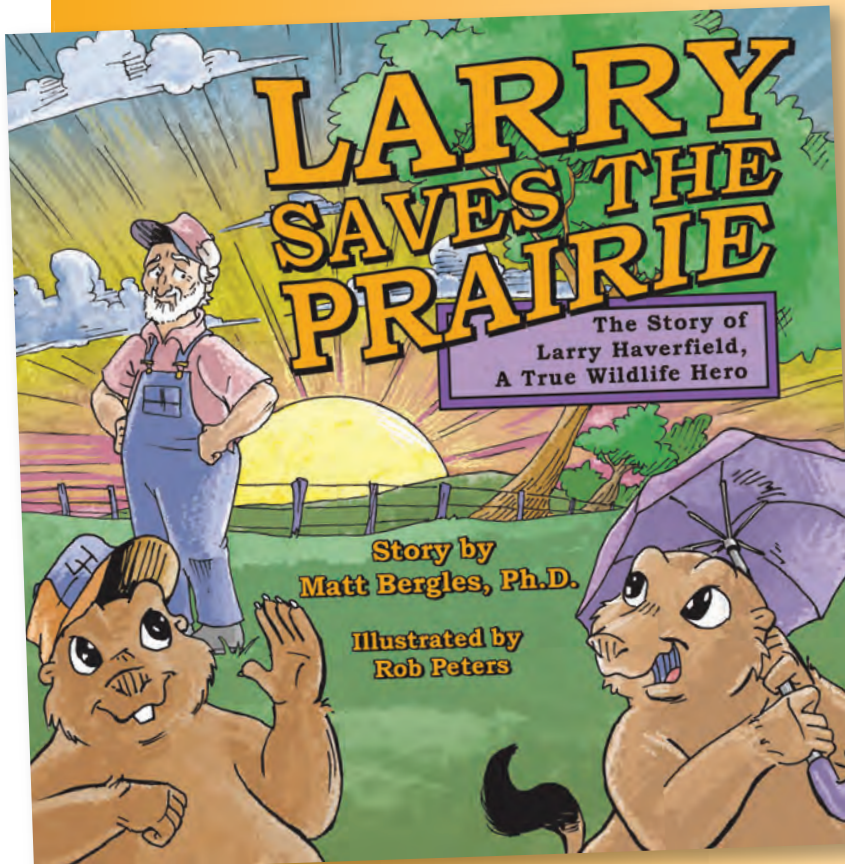
southern Africa, during a year of doctoral dissertation research on wildlife management and partnerships for collaborative conservation on private land. We visited ranches and farms, and he accompanied me as I interviewed a variety of stakeholders including landowners, farm workers, resettlement farmers, and organizations such as the Cheetah Conservation Fund. In many ways, this research reflects the passion we share for both conservation and the lives of rural people. Our travels in Namibia also form part of a larger journey, one in which we will continue to combine our efforts and work together toward common goals. I look forward to this future.



Ryan with landowners interested in wildlife management and conservation in Namibia.



Ryan Klataske is a doctoral candidate in Anthropology with a specialization in Environmental Science and Policy at Michigan State University. He currently teaches an online course on cultural anthropology at Kansas State University, where he completed his bachelor's degree in Anthropology and Spanish.



LARRY SAVES THE PRAIRIE

The Story of Larry Haverfield, A True Wildlife Hero

Prairie dogs Annabelle and Angus are lucky enough to have a rancher who wants to save them. Rancher Larry has to tell people how important prairie dogs are to a healthy shortgrass prairie ecosystem. Not everyone agrees and it's up to Larry to find a way to protect the prairie dogs and other wildlife on his ranch.

This children's book celebrates the bravery of doing the right thing for our prairie wildlife. It's a true story perfect for sharing with a child the importance of wildlife conservation.

The story was written by author Matt Bergles, Ph.D. (www.mattbergles.com) with illustrations provided by Kansan Rob Peters. With special contributions from supporters, AOK has obtained copies to send to public libraries and for other educational and outreach purposes. The book is also available through www.amazon.com, www.barnesandnoble.com and some independent bookstores.



Next Year's Smoke

Article by Bill Browning

Our ranch crew was in on eleven fires this spring, including one apparently due to arson. Altogether, cooperatively with multiple neighbors, we have burned about 8,000 acres. Except for the arson, which was miles west of our ranch, we burned all the acres we aimed to and no more. The biggest burn involved a 4 ½ mile backfire. Our first fire was March 10th as we were trying to get as much smoke gone as possible before the EPA ozone monitors were activated on the first of April. One of our fires was extinguished prematurely by three inches of wet snow.

Our last fire was yesterday – April 15 – not a big one, less than 200 acres, but big enough to draw “fire hawks.” At some point each spring the prolonged torching of the Flint Hills intersects with the Swainson’s Hawk migration. These birds are drawn by the smoke and are often circling the fire even before it is completely lit. Other species of hawks do not seem to respond similarly. I have never seen a Prairie Falcon at a burn, or a Northern Harrier or any accipiters and only occasionally a Red-tailed Hawk or two. Some primordial synapse in the

Swainson’s brain must equate smoke to “fire food” – seared vole and blackened snake. Others reappear from the safety of their burrows.

Later in the day my five year old grandson returned with me to the burn to survey for fire hawks. We found twelve. One soared down from a perch to nab a tiny, probably well-done, rodent with one talon. Half of the dozen birds were perched on the ground out in the burned area.

We watched one after another in flight. Surely there is no bird that appears more at home in the sky. Their effortless drifting seems to be in slow motion relative to many other hawks. The side to side rocking in the wind of the other raptors is smoothed out with the Swainson’s. If there is a joyousness to flying, the Swainson’s must feel it the most. Wing beat is not the right term for this bird whose wings seem to caress the air. No bird glides down to earth more gently.

The presence of migrating Swainson’s is brief. In a few days most will be gone. We seldom see them here in fall migration but our fire hawks will be back in the next spring’s smoke.

UNNATURAL DISASTERS:

The Last of Wild Bison in the Great Plains

Article by **Robert T. McElroy**



The Bison Trail by Charles Marion Russell (1908)



Buffalo Hunt by Charles Marion Russell (1897)

Managing Editor's Note: The Spring/Summer 2014 edition of *PRAIRIE WINGS* included an article by Dr. McElroy entitled “*The Last of a Species 100 Years Ago*” based on accounts of the total destruction of hundreds of millions of Passenger Pigeons--and then, with the death of the last living specimen, extinction in 1914. That and other previous articles can be viewed on the AOK website. This article is also based on another book in the collection inherited from Jean's aunt. The book recounts observations during the short period of time when the continent's most numerous large grazing mammals were extirpated from the wild in the Great Plains by greed and a combination of governmental neglect and decree. It was a time when destruction of American Bison and other wildlife was part of the ethnocide of America's Plains Indians. It occurred here, in the decade leading to the establishment of the State of Kansas in 1861 and the two decades that followed.

Thirty Three Years among Our Wild Indians

By Col. Richard Irving Dodge with introduction by William Tecumseh Sherman, General

Published by A.D. Worthington & Co. 1882

Col. Dodge lived, worked and fought with the Plains Indians for over three decades and his observations of Indian life are wide-ranging and insightful. Below are first-hand accounts of what he saw and experienced.

“It is almost impossible for a civilized being to realize the value to the Plains Indian of the buffalo which furnished him with home, food, clothing, bedding, and horse equipment, almost everything. With it he was rich and happy, without it he is poor as poverty itself, and constantly on the verge of starvation.

“Fifty years ago the buffalo ranged from the Plains of Texas to far north beyond the British line; from the Missouri and upper Mississippi to the eastern slope of the Rocky Mountains. Every portion of this immense area called the Plains was either the permanent home of this animal, or might be expected to have each year one or more visits from migratory thousands.”

In 1871 Col. Dodge noted the buffalo appeared to move northward in one immense column, oftentimes from twenty to fifty miles in width, and of unknown depth from front to rear. Other years the northward journey was made in several parallel columns, moving at the same rate and with their numerous flankers

covering a width of a hundred or more miles. He was informed by old frontiersmen: “that the line of march has not, within twenty-five years crossed the Arkansas River east of Great Bend, nor west of Big Sand Creek. The most favored routes crossed the Arkansas at the mouth of Walnut Creek, Pawnee Fork, Mulberry Creek, the Cimarron Crossing, and Big Sand Creek.”

The Plains Indians developed techniques to hunt and kill the buffalo with great precision. Col Dodge described one hunt in the fall, when the buffalo were at their fattest, employing the use of a “surround” where the buffalo were forced into a circle and over three hundred were killed in short order. The carcasses were processed by the women of the tribe while the men retired to the camp to brag about their exploits

“The danger from Indians and the great distance from market had heretofore protected the buffalo from wholesale slaughter by whites, but by 1872 the buffalo region had been penetrated by no less than three great railroads, and the Indians had been forced from their vicinity. About this time too it was discovered that the tough, thick hide of the buffalo made admirable belting for machinery

and the dried skins readily commanded sale at three to four dollars each. The news spread like wildfire, and soon the Union Pacific, Kansas Pacific, and Atchison, Topeka and Santa Fe railroads, swarmed with hunters from all parts of the country, all excited with the prospect of having a buffalo hunt that would pay. By wagon, on horseback, and a-foot the pothunters poured in, and soon the unfortunate buffalo was without a moment's peace or rest. Though hundreds of thousands of skins were sent to market, they scarcely indicated the slaughter. From want of skill in shooting, and want of knowledge in preserving the hides of those slain one hide sent to market represented three, four or even five of dead buffalo.

"The merchants of the small towns along the railroads furnished outfits,

arms, ammunition, etc. to needy parties, and established great trades, by which many now ride in their carriages.

"The buffalo melted away like snow before a summer sun. Congress talked of interfering, but only talked. Winter and summer, in season and out of season the slaughter went on. In 1871-72 there was apparently no limit to the numbers of buffalo. In the fall of 1873 I went with some of the same gentlemen over the same ground we had hunted previously. Where there were myriads of buffalo the year before, there were now myriads of carcasses. The air was foul with sickening stench, and the vast plain, which only a short twelve months before teemed with animals, was a dead putrid desert. During the three years 1872-73-74, at least five million buffalo were slaughtered for their hides.

"The slaughter was all in violation of law, and in contravention of solemn treaties made with the Indians, but it was the duty of no special person to put a stop to it. The Indian Bureau made a feeble effort to keep the white hunter out of the Indian Territory, but soon gave it up, and these parties spread all over the country, slaughtering the buffalo under the very noses of the Indians."

Col. Dodge sadly notes: "Ten years ago the Plains Indians had an ample supply of food, and could support life comfortably without the assistance of the government. Now everything is gone, and they are reduced to conditions of paupers, without food, shelter, clothing or any of those necessities of life which came from the buffalo; without friends, except the harpies, who under the guise of friendship, feed upon them."

LAW AT LITTLE BIG HORN

By Charles E. Wright

A friend and distinguished attorney, Charles Wright of Lincoln, Nebraska has been working for the past eight years on a manuscript entitled **LAW AT LITTLE BIG HORN**. The book details the conspiracy between President Grant and Generals Sherman and Sheridan to use the Army to attack and forcibly remove the Sioux and Cheyenne Indians from their treaty lands located north of the North Platte River and east of the Bighorn Mountains. The story is told from the perspective of the Indians and their legal rights, and describes in detail Custer's defeat at Little Big Horn.

For those of us who consider the motives and actions of Custer to be a disgrace—including the earlier (November 1868), merciless, dawn attack led by Custer on a band of peaceful Cheyenne living with Chief Black Kettle in Oklahoma—the manuscript is loaded with relevant facts and insights.

The book is scheduled to be printed by Texas Tech University Press in January 2016. It will be available from the distributor at 800-621-2736 and Amazon.

Charlie Wright is a former Audubon of Kansas Trustee, has helped with our stewardship of the Hutton Niobrara Ranch Wildlife Sanctuary, and continues as an Honorary Trustee.



Law at Little Big Horn
Due Process Denied
Charles E. Wright
Foreword by Gordon Morris Bakken
History / American West



Plains Histories

6 x 9, 352 pages; index
40 halftones; 19 maps
\$45.00 hc 978-0-89672-912-4
e-book available
January 2016

In 1876, the United States launched the Great Sioux War without a formal declaration of war by Congress. During the nineteenth century, the rights of American Indians were frequently violated by the president and ignored or denied enforcement by federal courts. However, at times Congress treated the Indians with good faith and honored due process, which prohibits the government from depriving any person of life, liberty, or property without a fair hearing before an impartial judge or jury. These due process requirements protect all Americans and were in effect when President Grant launched the Great Sioux War in 1876.

Charles E. Wright analyzes the legal backdrop to the Great Sioux War, asking the hard questions of how treaties were to be honored and how the US government failed to abide by its sovereign word. Until now, little attention has been focused on how the events leading up to and during the Battle of Little Big Horn violated American law. Though other authors have analyzed George Armstrong Custer's tactics and equipment, Wright is the first to investigate the legal and constitutional issues surrounding the United States' campaign against the American Indians.

This is not just another Custer book. Its contents will surprise even the most accomplished Little Big Horn scholar.



Born and raised in western Nebraska, **Charles E. Wright** is a retired lawyer who spent fifty years practicing in Nebraska and Colorado. He has long been associated with Indian rights and has funded scholarships and organized a mentoring program for promising Indian students from recognized tribes to attend law school.



www.ttpress.org



Larry Haverfield:

Memories of a True Conservationist

Article by **Randy Rathbun**

On September 21, 2014 we lost a hero to the environmental community in Western Kansas. Larry Haverfield was a humble and modest man who cast a large shadow across the shortgrass prairie of western Kansas. I am deeply honored to pen a few words in his remembrance.

One of the great joys of my professional career was representing Larry and Bette Haverfield in their six-year legal battle with Logan County and the Kansas Farm Bureau. It was not a fight they sought, but it was also not one they backed away from. Before it was over, the Haverfields, and their adjoining landowners Gordon and Martha Barnhardt, would be neck deep in a legal battle involving not only the taxpayers' coffers of Logan County, but also the Kansas Farm Bureau, the Mountain States Legal Foundation, and the Kansas Department of Wildlife & Parks. Those six years in the legal trenches—from Logan County District Court to the Shawnee County District Court, back to the Logan County District Court, and finally to the Kansas Court of Appeals and Kansas Supreme Court—gave me an insight into the spirit of a man that I grew to greatly admire.

I have never thought of myself as a big city lawyer, but I imagine I was perceived that way when Larry and Betty Haverfield and their adjoining landowner, Gordon Barnhardt, came to my Wichita office in early November, 2005. The County Attorney of Logan County, Andrea Wyrick, had just sent them a demand letter warning that if they had not begun “eradication” of prairie dogs on their ranch, the County Prairie Dog Director would start the eradication for them and would bill them for the costs. Larry was a true salt-of-the-earth west



Kansas rancher. He dressed plainly and seemed a bit uncomfortable in the office of a Wichita environmental litigator. But when Larry began to talk about his beliefs, I was captivated. The Haverfields are true Teddy Roosevelt conservationists. Larry spoke with passion about the value of every species on their land.

Over the next six years I watched Larry speak at public hearings, give depositions, and testify in court about his beliefs. I watched in amazement as he spoke in a clear and strong voice at a public meeting in Oakley, called by the Logan County commissioners about the “prairie-dog issue.” The meeting was a donnybrook, with the anti-prairie-dog force vastly outnumbering the few environmentalists that had the courage to show up. Scorn was heaped upon Larry as he spoke about the value of prairie dogs in our ecosystems. His reference to prairie dogs as a keystone species and their essential role in the life of Ferruginous Hawks, Burrowing Owls and other



Left: Larry and Bette Haverfield display a sheet metal ranch sign with silhouettes of a Black-footed Ferret, Prairie Dog, Coyote and Eagle. It was given as a token of appreciation from a group of friends and wildlife organizations.

Below: Larry, daughter Cathy Lucas and Bruce Kennedy of Lincoln, Nebraska relax after releasing ferrets late that afternoon in November 2008, while Marge Kennedy and Bette visit in the background.



shortgrass species was met with blank stares and disapproving grumbles from the crowd that had been whipped to a frenzy by the Kansas Farm Bureau. The chairman of the commission repeatedly threatened lawsuits against another brave landowner, Gene Bertrand, if he didn't kill the prairie dogs on his land. This was the second such meeting that year. Regarding the earlier meeting, the Colby Free Press noted that Larry was outnumbered 100 to one—which fazed him not in the least.

The story about Larry Haverfield is much more than prairie dogs and Black-footed Ferrets. Before I share my thoughts though, I wanted to talk a little about Larry's beginnings.

“Hammerhead” Haverfield

Larry was born on November 20, 1936 in Scott City, Kansas to John and Edith Haverfield. He had one sister, Ruth, who was eight years younger. His mother, Edith, was the local librarian and a gracious woman. His parents moved into town when Larry was in the second grade and he attended public schools in Scott City.

Larry was a good athlete and he excelled in basketball, tennis and baseball. Larry liked to joke that he was able to win the heart of his “trophy bride” Bette, because he was captain of

the basketball team.

It is while attending the Scott Community High School that Larry earned the nickname “Hammerhead.” It seems his head was unusually hard when he knocked heads in high school sports, and the nickname was apparently fitting. That hard head clearly served him well later in life as government officials sought to bully him into submission.

Larry's background is not exactly the stuff of a Horatio Alger's novel, but it is quite impressive and stands testament to the American ideals of hard work and ingenuity paying off. Larry started in the cattle business when he was fourteen near Scott City, feeding them before and after school. At the age of 27, Larry and Betty borrowed the money to purchase 2000 acres of pasture in southern Logan County. Over the years, Larry and Betty built the operation to a total of 6700 acres owned and about 3000 more rented for a Texas-sized ranching operation approaching 10,000 acres.

The Haverfields won a great victory for the environmental community in their battle to stop enforcement of the antiquated Kansas Statute requiring eradication of prairie dogs in Kansas. But focusing on Larry's fight with the Logan County Commission and the Kansas Farm Bureau missed the point. Larry was about much more than Black-tailed Prairie Dogs and Black-footed Ferrets. And that is the part of Larry Haverfield that I would like to focus on.

The Prairie Dog as a Keystone Species

I had the pleasure of teaching an environmental law class at Friends University in the past and one of the highlights of the class was taking these graduate-level students (mostly adults

Ranch Success Insight

A rancher, Jr. Lehmann, helped young Larry with ranching practices. Sam Brookover was another good friend and cattleman. Larry had the same banker, Bob Gaskill, for fifty years and that is a long time in the cattle business.

Early in his career as a rancher, Larry credited ranch hands, Royce and Bill Cook, with teaching him how to make repairs with baling wire and gray duct tape*. A favorite pair of pliers was essential, and if they were misplaced, everything stopped.

—Bette Haverfield

**Duct tape was developed in World War II. The concept was developed by Vesta Stoudt, a mother of two sons serving in the Navy. To overcome obstacles, she wrote to President Roosevelt to “sell” the idea to the War Department. Named “Duck Tape” at the time, it was purported to be waterproof like a duck, and was made with cotton duck fabric.*

adding a master's degree) to the Haverfield Ranch. We would time our visit in the late spring as the prairie was coming alive. We would leave Wichita in the early evening and arrive in Logan County before midnight, where we would congregate in Larry and Betty's living room. Larry would always patiently retell the story of our fight with the Logan County Commissioners—and I never once heard him embellish it. Some in the group would grab a quick cat nap and others would simply stay awake and talk until one or two a.m. when it came time to load up for the Black-footed Ferret spotting exercise.

I always was lucky enough to ride with Larry in these dark hours of early morning expeditions. It was during these excursions that Larry would regale me with stories from his early days. We talked about his family, the ranch and all things K-State. But it seems we always got back to his love of the land and all the creatures. Larry always knew whether there were Golden Eagles around, whether the count on Ferruginous Hawks was up or down and—most important to Larry—whether the prairie dog population was being maintained. It was during one of these night-time spotting excursions that Larry introduced me to the concept of keystone species.

The eminent zoologist, R. T. Paine, taught us that a keystone species is a species that has a disproportionately large effect on its environment relative to its abundance. His research, which took place in the late 1960s, focused on what happened when a species—in his seminal study, a starfish—was removed from a coastal area in Washington state. What Paine discovered was dramatic changes made to the ecosystem by the removal of a certain species of starfish far exceeded the effects predicted. Since this research, the keystone effect of certain species has been shown a number of times. Paine's research has provided a basis for our understanding the forces that organize ecological communities and has been essential to the thinking

of managers and policy makers as they set priorities in their efforts to conserve species and habitats.

Larry knew of the research on keystone species—but more than that, he saw it daily on the shortgrass prairie he ranched. He never grew tired of explaining how many different species depended on the prairie dog and their burrows, including Burrowing Owls, Cottontail Rabbits, reptiles and amphibians. Coyotes, Badgers and Swift Foxes enlarge the burrows for their use. Prairie dogs are a critical food source for Ferruginous Hawks, Golden Eagles, Coyotes, Black-footed Ferrets, Swift Foxes and Badgers. The Black-tailed Prairie Dog does not hibernate in winter, as do their eastern cousins Woodchucks and Marmots in the Rockies. Accordingly, prairie dogs are one of the few food sources for predators in the long winter months.

Larry the Rancher

As mentioned above, the Haverfield Ranch is located in the shortgrass prairie of Logan County. West of the Monument Rocks Chalk Pyramids is Lone Butte, which stands as a sentinel over southwest Logan County. The ranch lies at the base of the butte and spreads over almost 10,000 acres.

The geography and geology of southern Logan County is interesting. Fingers of the Smoky Hill Valley and associated bluffs extend west into what would otherwise be the High Plains region. About 25 miles east of the ranch, Monument Rocks rise above the floor of the Smoky Hill Valley in western Gove County. The chalky rocks of Gove and Logan counties are world famous for the notable fossils which have been discovered in them.

The tallgrass ranchers in the Flint Hills no doubt wonder how someone can successfully run cattle in an area that is lucky to get 20 inches of precipitation a year. In several recent years



Photos by Ron Klataske



November 14, 2008, Larry Haverfield is shown in these photos releasing two Black-footed Ferrets, the photo to the right shows daughter Cathy Lucas releasing another ferret. A cold wind was howling from the northwest that day in western Kansas, but the ferrets found welcoming prairie dog burrows as they were released.

Ron Klataske Photos

Losing your Dad...

is like being punched in the stomach. A good Dad lets you know your place in the world. He believes you are important and will be good at whatever you decide to do. He expects you to work hard, stand up for yourself, be kind to others, particularly underdogs. When you are a kid he can be annoyingly cheerful as he sings "Zip-a-Dee-Doo-Dah" while you are hunched over breakfast before going to school. A good Dad worries about you in a quiet way and makes suggestions about ways to be safe. He doesn't get mad when you hit his new pickup with a tractor and just tells you he's glad you weren't hurt and names the Pickup "Scratch". If you are his daughter, he boosts your self-confidence by singing "Here she is, Miss America" when clearly you are just an awkward teenager. He says "Get mad, not sad" when things aren't going your way. He teaches you to use your bony elbows when you play basketball and that any kid of his is going to know how to make a lay-up on the basketball court. He tells you you don't have to tell everyone to meet you at the hospital when a baby is coming. A caring Dad passes down your family history to you and let's you know you come from a somewhat crazy clan but a little crazy never hurt anyone. He loves your mother and thinks she's beautiful and tough as nails and just the wife for him...and it's been that way for sixty years. He shows you that cattle and cattle dogs should be treated kindly. Land and wildlife should be treated reverently.

When you ask him toward the end of his life if he would have done anything differently he says, "Yes". You wait with anticipation for his words of wisdom. He says, "Make more money!" You both have to laugh, because that is what a good Dad has taught you...that life is fun and to enjoy it.

—Cathy Lucas



there has been far less rain as the area suffered severe drought. Larry referred to his family as "steer grazers" and the operation—which will be proudly carried on by his children is unique. The operation involves buying calves in the fall of the year and grazing them.

A visit to the Haverfield's modest home was always an eye-opener. Walking in the front door, one would likely see a cattle sale taking place on a computer screen. Larry bought cattle that some might turn their nose up at. But he knew how to make his system work.

Larry always said he was successful because he grazed his pasture the same way that buffalo grazed the shortgrass prairies in western Kansas. He ran electric fence and divided the ranch into "paddocks." There are roughly 115 paddocks which average about 75 acres of grass. The operation involves moving the cattle from paddock to paddock depending on how the grass is holding up. The steers might be moved to the next paddock after a day—sometimes maybe a couple of days. Although the process was labor intensive, Larry strongly believed in it. And it is hard to argue with success.

This type of ranching is sometimes referred to as "holistically planned grazing" or "intensive rotational grazing" and the principal proponent of this system is Allan Savory. Larry was a great admirer of Savory and attended seminars on rotational grazing. The process essentially mimics what happened to our prairie when huge herds of buffalo grazed the land. Larry watched the grass carefully before moving steers to the next paddock. Each paddock was only grazed several days per year.

As you can see, Larry's interest in protecting this planet upon which we reside extended greatly beyond prairie dogs. He learned by watching and putting into practice the things that made the prairies flourish centuries ago.

His friends and family miss him greatly. His conservation legacy will be carried on by Bette and their children.

Sometimes, knowing a person is life-changing. Larry Haverfield was a man of values and vision. His vision included the concept that protecting wildlife can be compatible, even complementary, with profitable ranching. He was well read, soft-spoken, humble and welcoming. It was easy to be a friend, and to feel like a member of the family. I never heard him speak unkindly of others. He would dismiss any suggestion to do that—even regarding those who insulted his integrity for his tenacity to protect wildlife. Memories of Larry, and his visionary legacy, will always remain inspirational.

—Ron Klataske



IN KANSAS:"A CONSERVATIONIST'S VIEW

Article by Joyce Wolf

Governor Brownback's call at the 2013 Water Conference to examine Kansas' future water needs through the 50-Year Water Vision correctly laid out the two primary water-related issues facing the state: 1) nearly 70% of the population gets its drinking water from reservoirs that have been filling with sediment; and 2) the Ogallala Aquifer in western Kansas has been depleted by irrigation. Neither of these problems, however, is new. It has been known for more than 30 years that irrigation has taken its toll on the ability of the Ogallala-High Plains aquifer to meet the needs of western Kansas' communities and agriculture. And it has been several decades that sedimentation has been recognized as a challenge for reservoir and watershed management.

Timeline for Planning and a Name Change

As described on the Kansas Water Office's (KWO) website this visioning process was to be completed and the final document released during the 2014 Governor's Water Conference. But because Kansas' water issues tend to be complicated, that deadline has come and gone. It appears, however, that they were listening to comments by the general public and representatives from conservation organizations who attended several meetings with the Vision Team members during the spring and summer of 2014. As a result of those meetings the second Vision is now called: "A LONG-TERM VISION FOR THE FUTURE OF WATER SUPPLY IN KANSAS." That seemingly simple change in the title reflects the numerous comments made about the first draft:

- it did not include any notion of sustainability;
- it did not promote a diversified, ecologically-based system of agriculture which reflects available resources;
- it did not mention the potential ramifications of climate change;

- it did not call for full funding of the State Water Plan;
- it neglected to include the negative effects on wildlife because the state does not enforce its policy of ensuring Minimum Desirable Streamflows (MDS);
- it did not recognize the economic benefits of water-based recreation;
- and furthermore, water-quality issues were barely mentioned.

Those are but a handful of the hundreds of comments that were made between the time the visioning process was announced in 2013 and when the second version was distributed in November 2014. But merely emphasizing water supply, without giving recognition to the overall context in which it occurs, is shortsighted at best. Unless we address the issues mentioned above, and protect all of our natural resources, there will be no long term.

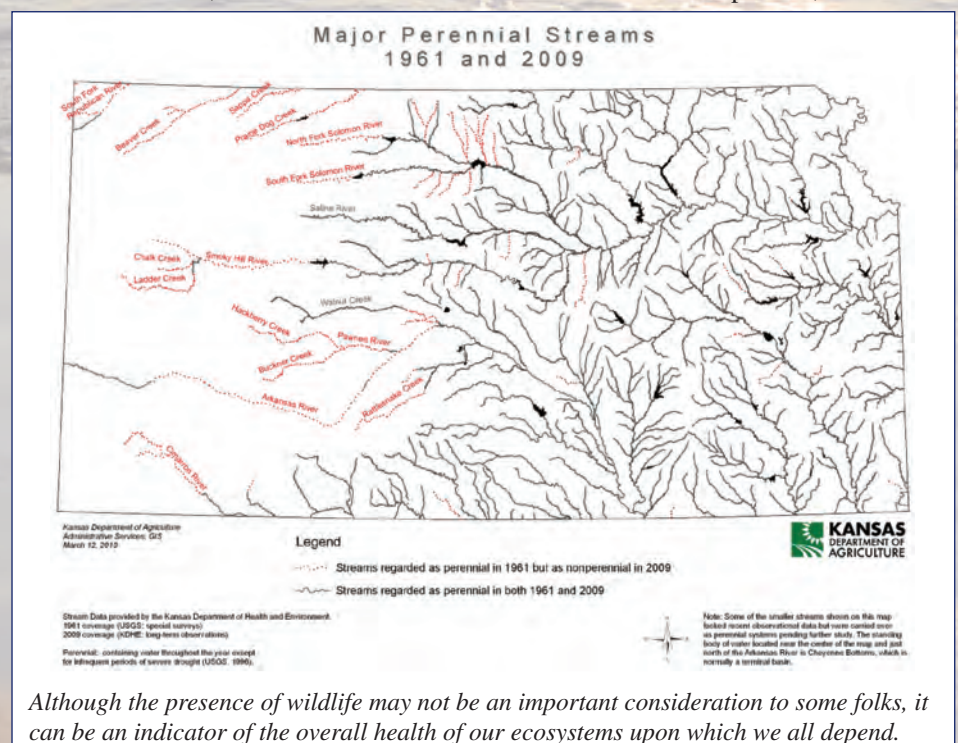
Where Are We Now in the Process?

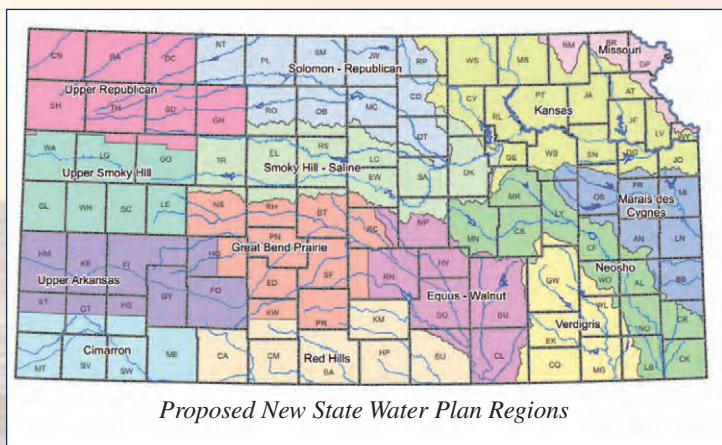
Since the second version was released in November 2014, there have been

multiple meetings across the state, including those held during March 2015 in the new regional planning areas. Perhaps the most significant outcome of the 50-Year Vision process was switching from statewide watershed-based planning areas to a combination of watersheds and political boundaries in central Kansas and to purely political boundaries in the western counties. In the latter case, this appears to be recognition that the planners no longer have any expectation of those rivers and streams ever sustaining year-round flows. And with no flows in the streams and rivers, they will not support aquatic wildlife. Not only will this affect the biota within the rivers and streams in those areas but it essentially eliminates water-based recreation for Kansas citizens there as well.

Wildlife and Environment Historically Have Been Addressed in the State Water Plan

It should be noted that in 1985, to ensure that stakeholders throughout the state had an opportunity to be heard in the State Water Plan process, Basin





Proposed New State Water Plan Regions

RACs/GOALS_
RAC_August
2015.pdf

A quick review of each of the RAC's goals found no mention of water for wildlife, very little about protecting water quality, a lot about sedimentation in

that took place under former Governor Mike Hayden, which established the State Water Plan Fund, I'm somewhat at a loss to understand why those efforts are being abandoned. The Water Plan Fund is supposed to receive about \$6 million annually from the State General Fund, about \$2 million from the EDIF (lottery monies), and the remainder from fees on fertilizers, pesticides, stock water, and municipal and rural water districts. Those negotiations took two legislative sessions to reach an acceptable compromise, and in my opinion we ended with a system where "everyone pays and everyone benefits."

Unfortunately, since his first election, Governor Brownback has chosen to never fully fund the State Water Plan Fund. Instead those funds have been diverted from the Water Plan Fund and used for other purposes. Over the last 5 fiscal years, the General Fund transfer has only been made once, in FY 2011 in the amount of \$1.3 million (and that budget would have been passed during the 2010 legislative session before his election).

ACTIONS AND CHOICES HAVE CONSEQUENCES

Sedimentation in Kansas Reservoirs

As previously mentioned, most Kansans get their drinking-water supply from reservoirs and also rely on them for flood protection. Unfortunately, many reservoirs are losing their capacity for both functions as sediment accumulates on the bottom of the lakes, significantly reducing their storage capacity. And in some cases this process is happening at a far faster rate than originally projected. The most critical of these reservoirs is John Redmond, near Burlington, which provides cooling water for Wolf Creek Nuclear Power Plant. Current estimates for dredging John Redmond Reservoir and implementation of upstream watershed protection practices came in at nearly \$25 million. Bonds have been approved and that process is now underway. Ultimately nearly all of Kansas' major reservoirs will need sediment removed – at similar costs. If the General Funds that were supposed to be "dedicated" to the State Water Plan had not been swept away, a large portion of the nearly \$24 million could have been

Advisory Committees (BACs) were established in each of the 12 river basins in Kansas. All BACs had seven "core" categories with a representative from each of the sectors: agriculture, conservation/environment, fish and wildlife, industry/commerce, municipal public water suppliers, recreation and one slot for an at-large public member.

By December 2014, the Kansas Water Authority established the Regional Advisory Committees (RAC) pictured above, which will transition from the 12 Basin Advisory Committees. As noted earlier, because water for wildlife was not part of the original 50-Year Vision, it should not come as a surprise if new "core" categories of concern will change as well. If previous meeting schedules continue, these RACs will meet a few times a year to provide recommendations to the Kansas Water Authority for evaluation and adoption in future State Water Plan changes. However, it seems highly likely that for now, these Regional Advisory Committees are tasked with looking mainly at water supply issues – with even less attention given to wildlife concerns.

The following is an August 2015 quote from the chairman of the KS Water Authority: "The KWA and I want to commend the stakeholders in each of the 14 regions who put in so much time and effort to produce water supply goals (emphasis added) to help ensure their area's water future," said KWA Chairman Gary Harshberger. "With Governor Brownback's leadership on Kansas water priorities this will enable the KWA and KWO to change the way water planning will be done in Kansas going forward." Each of the Regional Advisory Committee's goals can be read at: <http://www.kwo.org/>

Kansas reservoirs, and also seeking new sources of supply by building new reservoirs or increasing the storage capacity of current reservoirs either by dredging, which is expensive, or by raising the conservation pool. The latter option might mean either diminishing the flood-storage capacity of a reservoir or increasing the height of the dam, so that the reservoir can hold more water without losing its flood-water storage capacity.

The first priority action item was implemented in May 2015: the Governor's Water Resource Sub-Cabinet was formed to include the Water Office, Department of Agriculture, Department of Health and Environment and Department of Wildlife, Parks and Tourism. It will be the responsibility of the secretaries to represent their agency and constituencies to the governor for his consideration and approval.

Funding Is Key to Solving Kansas' Water Issues

The second priority action item: Establish a Blue Ribbon Task Force to develop a balanced, affordable and sustainable method to provide financing for water resource management and protection, including alternatives that utilize public and private partnerships. According to KWO staff members, candidates' names have been suggested and the final selection of Task Force members will be announced at the 2015 Governor's Water Conference. Given the state's budget woes, the challenge will be considerable to find acceptable funding sources.

The Original State Water Plan Fund

Having been a part of the negotiations

used to fund conservation practices in the watersheds upstream from our reservoirs. So we've not only missed the ability to decrease sedimentation, we've continued to lose fertile farm ground that serves us best when it stays in place to grow our food and feed our livestock.

DEPLETION OF THE OGALLALA AQUIFER AND PROPOSED SOLUTIONS:

Embedded within this section of the first draft was the proposal to build an aqueduct, tapping the Missouri River in far northeast Kansas and sending the water to western Kansas. There are many stumbling blocks with this scenario -- among the first being "water doesn't run uphill." Thus it would take enormous amounts of energy to pump the billions of gallons of water 360+ miles westward and approximately 1500 feet in elevation from the source to the end users. This proposal was first floated in 1982; however, upon further study and evaluation, it was abandoned at that time.

The proposal was to only tap "excess" water from the Missouri River (during flood times), build a reservoir in far northeast Kansas, then transport that water across the state to the thirsty counties that don't get adequate precipitation to meet their needs. The first problem was that based on historic flows in the Missouri River, of the projected need for 4-6 million acre/feet annually, only a little more than 30% of the time would 4 million acre/feet be available. And those projections did not take into account the likelihood of lesser flows due to decreased snow in the upper part of the watershed.

Although engineers deemed the project feasible, the anticipated cost of the aqueduct was staggering -- perhaps as much as \$18 BILLION dollars! And those cost estimates did not include environmental remediation, litigation from downstream states, or a system of distribution once the water arrived in western Kansas. It was also projected to cost as much as \$1 billion annually to operate the aqueduct. Perhaps the final blow was the estimate of \$450 per acre/foot to deliver the water, which would mean a cost of \$45,000 just for irrigating 100 acres of land. Thankfully

this proposal has once again been abandoned, but the question remains: what will happen to agriculture in the western part of the state?

Kansas policies have continued to encourage unsustainable practices. The aqueduct proposal was being considered because the economic engine driving much of western Kansas is the so-called "Golden Triangle" -- water, corn and cattle. Recently another leg has been added to the triangle -- ethanol production from corn. As the Governor correctly pointed out, these drivers add billions to the Kansas economy. But the single factor underlying this engine is water. And just as a car stops running when it runs out of gas, the western Kansas agricultural economy, based on depletion of the Ogallala/High Plains aquifer, will certainly sputter and likely have to change dramatically if continued exploitation of water resources are not curtailed.

Certainly this fact was known at the outset of the Visioning process. The promise of transporting water across the state was being touted as a solution to depletion of the High Plains aquifers. And many of the irrigators, especially in the southwestern Groundwater Management District #3, were counting on this proposal to save the current system of agriculture. I believe it was a huge disservice to those irrigators to encourage and promote an unsustainable idea that could never successfully find funding, given the current state of Kansas' financial affairs.

ENCOURAGING FURTHER WATER CONSERVATION

The revised Vision calls for the appointment of a task force to develop educational proposals for students, adults, and communities along with specific examples of activities that promote and encourage effective conservation measures on a statewide basis. For those living in the Ogallala-High Plains aquifer region of the state, the plan promotes greater adoption of Local Enhanced Management Areas (LEMAs). Further information on LEMAs can be found on the KWO website as well as on the Division of Water Resources (DWR) website. Irrigators within northwest

Kansas' Sheridan County have voluntarily agreed to institute measures which will permit them to continue to farm, while reducing the amount of water withdrawn from the aquifer. As the results are published on the DWR website, it is hoped that these innovative irrigators will be able to demonstrate that it is possible to maintain a profitable operation while reducing water use.

"OGALLALA ROAD" ADVICE FROM SOMEONE WHO HAS LIVED IN WESTERN KANSAS:

In her book "Ogallala Road: A Memoir of Love and Reckoning," Julene Bair, author and daughter of a Kansas Irrigator, has shown keen insight on what will need to happen to keep agriculture viable in our western communities:

"In place of corn subsidies, the government should provide generous financial incentives for a return to dryland crops and grazing. This is where Kansas agriculture is headed regardless -- the only choice being between a soft landing now and a crash landing later. If both the state and federal governments continue to encourage farmers to pump water until it is gone, the farmers will have no way of supplementing their dryland crops during droughts or increasingly hot summer weather. A water plan that truly comes to grips with this truth could keep thousands of farms from going bankrupt and taking the Kansas economy along with them."

Although each of the conservation groups that met regularly with the Visioning Team members addressed water issues in Kansas from a slightly different perspective, I believe that everyone was in full agreement that the state, communities and individuals must learn to live within their means -- that is you can't use more than what can be replenished in a reasonable timeframe. Only time will tell whether or not the visioning process has ignited better understanding and appreciation for the state's water resources and, if in doing so, Kansans will have adopted more sustainable and responsible practices toward all of our natural resources.

NEEDED: A 50-YEAR PLAN TO PROTECT STREAMS AND RIVERS

What Good is a Stream or River? The Question has been Evaded.



A family with children joins our family to enjoy a Flint Hills stream on our land near Manhattan.

Imagine a countryside without streams and rivers, and where they do occur they are phantoms of their former selves—streambeds of sand and dust where there were once necklaces of flowing water and peals of deeper pools.

On a larger scale, Imagine Tom Sawyer and Huckleberry Finn without the *Mighty Mississippi*, the Lewis and Clark expedition without the Missouri River, the Grand Canyon without the Colorado. Without the big rivers, our literature, collective culture, natural environment, and our continent's scenic splendor would all be immeasurably diminished.

Imagine if you grew up in a place with a stream nearby--where kids could wade in shallow places, and deeper holes were for swimming and fishing. Where the water was reasonably clear most of the time, and almost always flowing. Not so long ago streams were integral to the *quality of life* enjoyed by many, especially for families throughout rural areas.

This was true even in western Kansas. I've never forgotten the inspiring

"A river seems a magic thing. A magic, moving, living part of the very earth itself."

Laura Gilpin

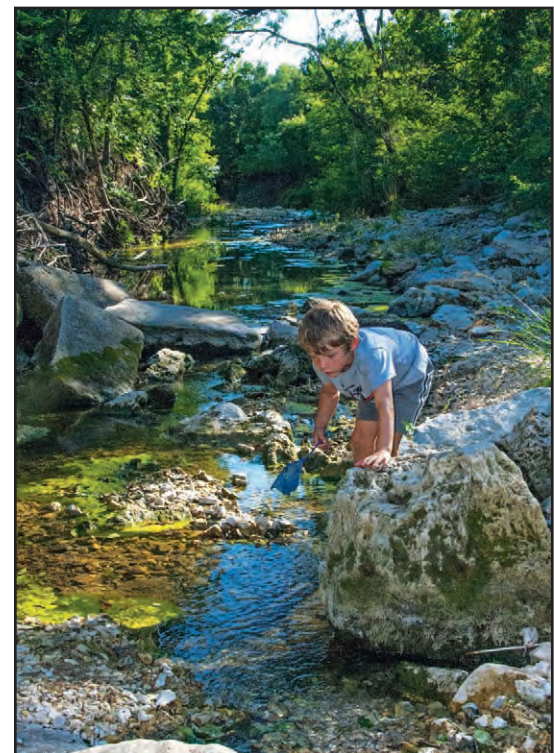
remembrances of such activities as described by Dr. Gerald W. Tomanek in a speech he gave at a conference at the Rock Springs 4-H Camp in the early 1970s. Jerry grew up in Trego County to the west of Hays. He was a renowned professor of biological sciences and served as president of Fort Hays State University from 1975-87. But during that evening presentation, he talked of the deep swimming holes, handsome catfish and treasured values that he enjoyed as a youth, and his

concern that they were dramatically diminished and were disappearing.

We took streams for granted in other parts of the state – like the sky and the soil. But the decline in perennial flows, with the accompanying disappearance of aquatic and associated life was undeniable in central and western Kansas by the early '70s,

Historically, streams and rivers teamed with life in the Great Plains, and many watercourses were sustained even in droughts by springs. Were it not for these streams, rivers and playa wetlands in the prairie plains there wouldn't have been great herds of Bison, Pronghorns, Elk, Mule Deer and the legendary abundance of

waterfowl and shorebirds. Collectively these streams were the arteries of life.



**"A good river is
nature's life work
in song."**

Mark Helprin,
Freddy and Fredericka

Life for indigenous peoples was sustained for thousands of years near these waterways. And without water for people and livestock, European settlers would have faced conditions far worse than the harsh challenges they recorded. It would have more closely resembled the *Great American Desert* – a label assigned by Major Stephen Long, a government surveyor and leader of an 1820 expedition. He couldn't see the richness of the prairies because of the absence of forests.

Fast forward two hundred years and we do not have to imagine western Kansas, a landscape expanse of 15 to 20 million acres, with little more than remnants of streams and rivers that were once blessed with water in most years or for some, all year round. Today most springs are extinct. For aquatic and riparian life, and for a lot of associated terrestrial wildlife, this is ecological desertification of the Great Plains. The added tragedy of manmade desertification is the elimination of flora and fauna and critical elements of the habitats upon which wildlife depend. Even if the streambed grows up in vegetative "cover," the habitat may not even be adequate for terrestrial animals—such as Wild Turkeys and deer—that require a readily available source of water.

Gone are all prospects for River Otters, Beaver and Muskrats, water birds and most fish. Stream banks that once housed nesting Belted Kingfishers are no longer hollowed out by these birds. These species are iconic symbols of the many losses.

The Land Remembers

Of course *the land remembers*. It remembers where there were streams and wetlands—playa lakes as many are classified on the high plains. When there are those rare downpours of several inches

of rain in a matter of hours, runoff rushes toward the traces of streams and gathers in the imprint of former wetlands. But it usually doesn't last long.

Word has been passed along that sometime in the 1970s there was such an event or an otherwise source of water released upstream into the Arkansas River in southwestern Kansas. Stories are told of anxious recreationists taking to the river with innertubes and other flotation devices somewhere near or west of Garden City. The flow was fabulous at the port of entry into the river -- but reportedly only for a distance less than a mile. There it penetrated into the *permeable sand and gravel streambed*, and seeped into the unsaturated zone where the water table had once been higher and in equilibrium with surface flows.

Because of the loss of perennial flows, stately cottonwood trees that once lined

riparian corridors are now dead or dying. They are like wooden reminders, not unlike the markers reflecting deeds of violence at Boot Hill in Dodge City. West of Great Bend, the Ark River streambed is used mostly for ATV traffic.

Although the State of Kansas has engaged in lawsuits to secure flows in the Arkansas River from Colorado, the flows do not restore or maintain riverine ecosystems. They are simply secured to be diverted immediately for irrigation. The same is generally true for required water flows from Nebraska in the Republican River near the state line. That is often about as far as it flows. Other stakeholders and values are not recognized by antiquated water laws, policies and "special interest" politicians.

The only promising prospects for the future of streams and rivers is for more -- many more -- people to take an interest in stream protection, become advocates



Photo © David Seibel, www.BirdsInFocus.com. All rights reserved. Used by permission.

***"The river is such a tranquil place, a place
to sit and think of romance and the beauty
of nature, to enjoy the elegance of swans
and the chance of a glimpse of a
kingfisher."***

Jane Wilson-Howarth,
Snowfed Waters

and be involved in water policy meetings. Conservation organizations also need to form alliances and work for enforcement of Minimum Desirable Streamflows (MDS). In most other states, public access to rivers and streams results in greater appreciation for their ecological and recreational values. But that is not true in Kansas. The Kaw, Arkansas and Missouri rivers are the only rivers classified as legally “navigable” and generally accessible in Kansas. All other streams are privately owned and permission must be obtained before using the river or stream for recreation.

Every stream and river worthy of protection needs advocates, ideally an effective friends group. Examples include Friends of the Kaw and the Arkansas River Coalition in Kansas, and Friends of the Niobrara River in Nebraska. During the past forty-five years many people and organizations statewide and nationally have come to the defense of the Platte River in Nebraska. By forming coalitions, they were able to defeat a dozen dam and diversion schemes that would have rendered it barren like the Arkansas River in western Kansas. Audubon and the Wildlife Federation at various levels were critical to the cause. The great migrations of Sandhill Cranes and waterfowl, along with Bald Eagles and Whooping Cranes, all utilizing critical migratory habitat provided by the Platte, are a reflection of what was at stake.

Spectacles of this magnitude cannot be showcased for every river, but the collective ecological values provided by rivers and streams are monumentally important throughout the Great Plains. As stated by David Brower: ***“We must begin thinking like a river if we are to leave a legacy of beauty and life for future generations.”*** His leadership was instrumental in stopping construction of a big dam destined to block the Colorado River and inundate the Grand Canyon.

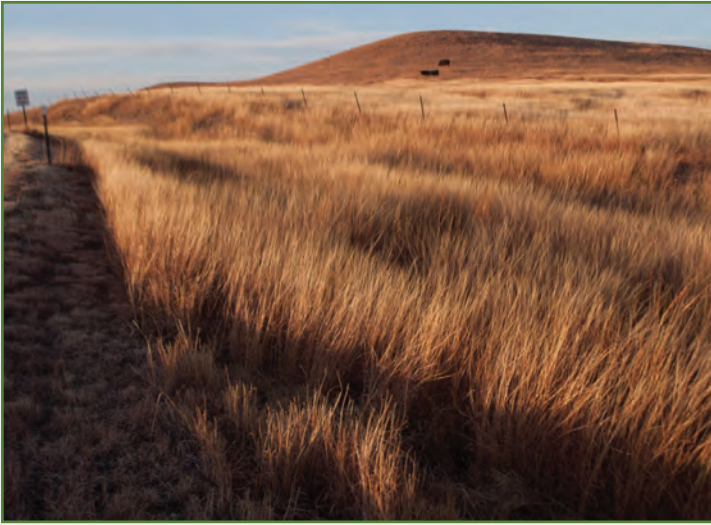
Since very little access to rivers and streams is afforded to Kansas residents, it is important that landowners who value and own sections of streams provide opportunities for others, especially families with children, to enjoy and learn to cherish these magical places.

- Article and Stream Photos
by Ron Klataske



These photos portray the Arkansas River south of Larkin in September 2014. Due to excessive stream flow diversions and groundwater exploitation, this “river” and many other streambeds in western Kansas are totally dewatered/dry for months and years at a time. Because the Ark River is “navigable” and open for public transportation, it has become a trail for ATVs.

Perseverance & Partnerships Critical to the Challenge Emerging from OWB's Threat to Prairies



Caucasian Bluestem along a PT County roadside, also taking over adjacent Tallgrass Prairie rangeland. This OWB has eliminated all other plants in the roadside, and is the lighter colored grass in the pasture.

Achievements of major conservation goals invariably take years, often decades. Prospects for success are always enhanced with partnerships. That is the road ahead for the invasive Old World Bluestems (OWB) threat.

Audubon of Kansas (AOK) has recognized the ominous presence and called attention to the explosive expansion of Yellow and Caucasian Bluestems along roadsides for more than a decade. Although a few individuals had expressed concern, the need for local and state agencies to address the threat hadn't—and still hasn't—caught fire.

Then, last year a local activist, a prairie conservation enthusiast with a 21st century *Joan of Arc* commitment, dropped by our office to ask for help.

Margy Stewart and some of her neighboring landowners in Wingfield Township of Geary County had taken matters into their own hands. They spot-sprayed glyphosate on patches of Caucasian Bluestem along a county road. In some areas, the infestations had already crossed the fence and were moving into prairie pastures. All of the landowners cooperated to nip the problem in the bud. They did what could be done in one year. However, they all knew that follow-up would be necessary. So Margy appealed to Geary County for help with future monitoring and control. That's when the wrath of uninformed agency staff came down on the grassroots initiative. A couple county officials took it upon themselves to berate Margy and threaten her with various sanctions if she and her neighbors did not desist. Of course, desisting was just what the Wingfield people were asking, as long as the County took over control of OWB. But some officials were adamant that Geary County would not control OWB. They even circulated a letter asserting that efforts to control OWB were pointless at best and caused more erosion at worst.

However, the real decision-makers, the County Commissioners, were not so sure. They wanted more information. Margy asked AOK for help in providing factual information. We met with the commissioners and provided an overview of our concerns. We also explained that because these grasses are toxic to other plants, they kill off more deeply-rooted plants and create areas of bare soil between clumps—making the rights-of-way **MORE** vulnerable to erosion.

Margy's appeal came after I had heard similar requests from a Wabaunsee County rancher and later a Greenwood County rancher at a Tallgrass Legacy Alliance meeting concerned about OWB on roadsides in those areas. It was clear that an educational workshop would meet an urgent need. OWB are grasses, and most people do not recognize them as they invade grassland landscapes across Kansas. Audubon of Kansas, together with the Kansas Wildlife Federation (KWF), Protect the Flint Hills, Kansas Native Plant Society, Kansas Land Trust, Grassland Heritage Foundation, Prairie Heritage, Inc., and Bird Runner Wildlife Refuge, planned a workshop for April 27, 2015.

Advanced registrations quickly overwhelmed the capacity of the community center we had reserved, so we moved the workshop to the historic barn at Konza Prairie. The workshop relied on the expertise of Karen Hickman, Natural Resource Ecology and Management professor at OSU and the country's foremost authority on OWB; Mitchell Greer at Fort Hays State; and Keith Harmony at the Ag Research Center at Hays. Their presentations were research-based, detailed, and substantive. DVDs of the presentations are available and a link for the full length of the workshop is posted on the AOK website.

Donna Sullivan, editor of *Grass & Grain*, was in attendance and she devoted the front page of the May 5 edition to provide a detailed account. Thus, nearly ten thousand readers were exposed to the fact that "Old World Bluestems Threaten Native Grasslands."

With the need for more coverage in central and western Kansas, two more OWB workshops were held in September, in Hays and Greensburg, with KWF taking the sponsorship lead.

During media outreach for those workshops, I urged Michael Pearce, the *Wichita Eagle's* Outdoor Editor, to take a look at the OWB threat to native grasslands and wildlife. He produced an exceptional feature article that appeared on the front page of the Sunday, October 18, 2015 edition. Importantly, as a result of his article, many people who own native range, hay meadows and pastures will now recognize OWB and begin to

“Get up tomorrow early in the morning, and earlier than you did today, and do the best that you can.” —Jeanne d’Arc

pursue plans to control it. As Michael mentioned, he didn't notice it before, but now sees it everywhere he travels.

Where do we go from here? The challenge to deal with these invaders gets greater every year, as OWB are being spread along roadsides. They may be on the verge of expanding exponentially—and taking over entire rangeland landscapes as they have in parts of western Oklahoma and Texas. In many areas in Kansas it is obvious that roadside-mowing operations spread OWB for miles and private hay removal from roadsides takes it to the heart of our state's native rangelands.

As Greenwood County rancher Bill Browning included in an October 22 statement to the legislative committee considering revisions to noxious weed statutes, "...wherever (infested hay from roadsides) is fed to cattle, the metastasis of this exotic will occur. This practice must be stopped." OWB can also be seen spreading into pastures adjacent to highways at hundreds—or thousands—of locations. For a number of reasons it is usually the last thing cattle want to eat in native range.

OWB negatively impact wildlife and dramatically diminish the biodiversity of grasslands.

If left unchecked, OWB may eventually cost ranchers tens of millions of dollars collectively to control as they try to save native rangelands. If uncontrolled, infested grasslands will substantially reduce profitability for cattle producers.

As crazy as it sounds, OWB got their boost in the Great Plains when agronomists in USDA Plant Materials Centers

“When you go back and look at American history.... If you weren't selfreliant on the prairie, you wouldn't survive.”
—Alan Greenspan

(most notably the one at Woodward, Oklahoma) developed OWB seed and released it. An OSU extension official promoted them, and NRCS approved them for use in OK and TX for CRP plantings. *Too bad the individuals responsible won't be covering the cost of control. Alternatively, USDA should make control an Environmental Quality Incentive Program (EQIP) priority and provide other assistance, and the Kansas Department of Transportation (KDOT) should eliminate non-essential mowing to redirect funds to control OWB.*

We can help by asking members of the Kansas Legislature to: (1) pass legislation adding Caucasian and Yellow Bluestems to the Noxious Weed list; (2) direct KDOT to develop and implement a comprehensive plan for timely control of these two invasives on highway rights-of-way and prohibit haying and removal of hay from any roadside areas infested with OWB; and (3) direct other state and county agencies to address this threat on lands they administer. Nebraska and other states north of Oklahoma should do the same before OWB become ubiquitous.

—Ron Klataske



Top photo, a May view of an OWB-infested roadside following a spring burn, showing bare areas between clumps--and erosion. Lower photo, the same roadside in September illustrating the dominance of OWB--and the near total elimination of native plants.



Private haying and removal of contaminated hay from highway roadsides has become a vector for spreading of OWB.

Ron Klataske photos

Jeff Hansen —

An Inspiring Field Naturalist

By Bob McElroy

Among my many pleasures of being involved in the Audubon community at both the state and local level has been getting to know Jeff Hansen. Jeff is a largely self-taught expert or autodidact on native plants and flowers, knowledgeable birder, probably one of the best field naturalists in Kansas, leader and enthusiast of the local Audubon Society and the Kansas Native Plant Society. He publishes almost daily e-mail commentary on birding and the activity around his backyard feeder, water source and multiple birdhouses. Jeff is a proponent of backyard science and acute observation of on-the-ground nature that does not require a PhD in ornithology. Without dispute, observations of naturalists like Jeff yield incredible insights on bird ecology.

To spend a few hours with Jeff in the field is to experience his humor, laughter and wit while he points out one obscure or obvious plant after another in a field I thought consisted only of grass. On my farm south of Topeka, which contains native or virgin prairie, he identified 342 different species from a varied landscape. He has an almost boyish sense of wonder in the presence of a distinctly beautiful bird, insect or flower. Frequently his only comment or reaction is “Wow.” It is hard not to want to be part of that wonder and joy of the immediacy of what he is sharing; he is a gifted observer and teacher.

To give one a sense of Jeff’s enthusiasm and observations, below is a very small collection of emails received over the past several years. Many are accompanied by pictures made by Jeff or Randy Winter, a very talented Kansas wildlife photographer.

Nov. 26, 2008

Bob: Janeen Walters and I walked through a bit of your property this afternoon. Thought you would like to have a list of what we saw. First, the woodpeckers: Red-bellied, Downy,

Hairy, and Yellow-bellied Sapsucker. Add to those Eastern Bluebird, Blue Jay, Chickadee, Tufted Titmouse, Junco, Tree Sparrow, Red-tailed Hawk, Northern Harrier, Cedar Waxwing, Yellow-rumped Warbler, Great Blue Heron, various gulls, Bufflehead, Mallard, Winter Wren, Carolina Wren and Northern Flickers. It was a really nice day and we appreciate you letting us enjoy your land.

Feb. 20, 2010, To all Native Plant Lovers, The Kansas Native Plant Society has been helping with the initiative started by a high school class in 2006 to name a state grass for Kansas. All the surrounding states have a state grass to help school children learn about our prairie heritage, the importance of conserving what is left of this endangered ecosystem and to get them

out into the prairie enjoying nature. More information is posted at <http://www.kansasnativeplantsociety.org/littleblue/stategrass.htm>

April 27, 2010 Bob

Wow, I’ve found 342 species of plants on your property. Found lots of “new” things in the woods north of the watershed dam. You have Jack in the Pulpit and Green Dragon, Downy Yellow Violet, Spikenard...just to name a few.

Sept. 14, 2010

Topeka Audubon Society has a new website and the best part of the site in my opinion is the google calendar. With this calendar, you can click on an event and get a google map of the meeting location, as well as sign up for email reminders for specific events.

Check out our new site:

<http://www.topekaaudubonsociety.org/>

Oct 26, 2010

Wow, what a great morning for birding, went outside and there were birds galore: tons of Yellow-rumped Warblers, but also lots of Ruby-crowned Kinglets, one Orange-crowned Warbler, 2 Red-breasted Nuthatches, a Brown Creeper, and Carolina Wren.

Then I went to the Kansas History Museum to try to id sparrows. I did positively id tons of Song Sparrows, one Lincoln Sparrow, one Field Sparrow, and a Le Conte’s Sparrow—all in the grasslands. Going back to car saw Chipping Sparrows and Juncos in a mowed area.

Nov 1, 2010 TAS List Subscribers, I am working on a list of public lands in Shawnee County along with who the contact person is for each area. At some point, I’m going to put up a webpage on our site with information on each “park”. This is my list so far. It’s amazing how many public “wild” areas there are in Shawnee County. If you have additions, let me know.



Ron Klataske Photo

Nov. 9, 2010

Several members of KNPS came to the “*Honeysuckle Kill Site*” along Shunga Creek in Topeka. Those in attendance were James Morrisey, Vernon Montgomery, Allen Casey, and others. It was fun learning from Vernon his days as child playing along Shunganunga Creek in Topeka. We were able to rescue a small grove of Pawpaw trees that were being consumed by honeysuckle. I enjoyed teaching one of the participants how to identify tree-of-heaven. Crush the leaves and smell. He didn’t think it was a pleasing odor. Vernon discovered another invasive, burning bush (*Euonymus alata*), but we also saw our native *euonymus*: Wahoo. It was also nice to see the work we did this past spring. After working, some of us went for a walk along shunga, enjoying the day. It was a good day, and the best part was getting to know each other.

Jan. 7, 2011

Just wanted to share with everyone what a great time I had on the FIRST ANNUAL HOLTON CBC. I met Dan Larson at 6 a.m. to drive up to Holton. Met Marie Plinsky and Doris Burnett at the convenience store. We split into two teams with a lot of area to cover.

Highlight 1. Holton Cemetery for a Great-horned Owl. We then got chased out of the cemetery by security!

Highlight 2. Bird of prey on a fencepost, barely caught a glimpse of it. Maybe it was a Short-eared Owl?

Highlight 3. A lone Rusty Blackbird

Highlight 4. Visiting Fred and Nancy Coombs at their farm and counting lots of birds at their feeding area known as “Birdland,” saw a Barred Owl too.

Highlight 5. A Winter Wren on the edge of Banner Creek Reservoir while we are trying to look at tons of Mallards and Canada Geese.
Highlight 6. Lunch at the Holton House chicken place. We all met there for nice lunch and to share what we were seeing.

Highlight 7. The Loggerhead Shrike, both Dan Larson and I put our binocs on it and both said “SHRIKE” at the same time. We got good views. It was our “bird of the day”

Highlight 8. At the end of the day within 15 minutes we added Purple Finches, Red-headed Woodpeckers, and a lone Mourning Dove

Highlight 9. We tried to find a Short-eared Owl, and saw a rooster Pheasant flying at dusk

There was always an adrenaline rush with every new bird.

European Starlings and House Sparrows are not native to North America, aggressive and destructive to native birds that depend on tree cavities and nesting boxes, and they are not protected by state or federal law.

May 22, 2010

The House Sparrows chased my bluebirds out of their bluebird house. The Coombs had them kill one of their Tree Swallows. The Starlings are ousting woodpeckers from their homes. I’m tired of them winning. These non-native birds always seem to win out against our native birds, so I am ready to start a trapping program.

Here is a good site with ratings on bird house traps:

<http://www.sialis.org/traps.htm>

The website’s motto is, “May all your blues be birds!” Bluebirds!

I just ordered some VanErt traps for my houses, and I plan to build a nest box big enough for the Great Crested Flycatchers. Yesterday I saw a pair of Great Crested Flycatchers checking out a bluebird house, which I don’t think they can enter because of the small entry hole.

Also, there was a kid (eagle scout) selling bat houses at the farmers market. His houses work. He has had bats take up residence in them. He builds them himself.

Sept 17, 2012

I had to share this story with everyone. I was sitting outside Sunday morning enjoying the gorgeous weather. I noticed a hummer going from to my empty feeders and my empty oriole feeder and to some flowers. Then he approached me. He was 1 inch from the front of my face...staring me in the eye. I stayed still and he didn’t leave. I closed my eyes and I felt a little tickle. It was a bizarre experience. I filled my hummer feeders immediately.

“I still find each day too short for all the thoughts I want to think, all the walks I want to take, all the books I want to read, and all the friends I want to see.”

John Burroughs

(American Essayist and Naturalist, 1837-1921)

Sept 28, 2012

I just got back from the Chimney swift roost. What can I say...it was incredible. I estimated 5000 swifts going into that poor chimney. They started going in at 7:10 and ended after 7:40. I wonder if the roost hasn’t grown over the past few days. Watching them exit in the morning might be just as interesting to watch. This was my 3rd birding trip of the day. I’m now officially a bird nerd. I also got my First-of-Season song sparrow at Warren this evening.

Feb 20, 2013

Last night at *Birds and Beer* (a regular gathering of Topeka Audubon members), I was telling the people around me about my success with trapping house sparrows and starlings this winter. Some wanted to know about the traps I use. Unfortunately the introduced house sparrow and starling start adopting their nesting places before our native songbirds do. The sparrows had already filled my bluebird boxes with nesting material. I’ve counted 20 house sparrows in my backyard. No way a bluebird/chickadee/titmouset/flycatcher can compete with that.

I use the Van Ert trap. It catches them alive. You put a clear bag over the house and open it. The bird flies into the bag. If you catch a native species you can just release it. The invaders, I just hold them firmly so they cannot breathe, takes about 30 seconds. Find the trap at http://www.vanerttraps.com/mywebsite_005.htm

Over the winter I have caught 14 house sparrows and 7 starlings. This should be a banner year for native species in my yard. I currently have seven nest boxes up, one is a flicker box. It's good to have more than one box because if something nests in one you can use the others to trap sparrows/starlings. Sparrows will kill adult and baby bluebirds. Starlings will kill other birds too.

I really love woodpeckers but read about the affect starlings are having on them. It's really quite sad.

June 6, 2013

Bluebirds have raised one brood and now are starting their second. They moved to a house that is about 60 feet away from the first house they raised young. No House Sparrows in my yard, thanks to nest box trapping. I've removed 30 House Sparrows this season. Imagine if they all raised a couple broods. How can one pair of Eastern Bluebirds compete with all those House Sparrows? They can't. I also keep seeing Purple Martin houses that are put up with good intentions but mismanaged. They are full of House Sparrows and Starlings, creating more of these nonnative invasive species.

March 18, 2014

A pair of Northern Flickers appears to have adopted one of my nest boxes as their home. I first experienced the male

hammering on the roof. Later the female appeared from within the box. I believe the male hammering on the roof is announcing his territory. The flickers moving into this nest box would not have been possible if I didn't trap Starlings. Starlings are an introduced species that competes with flickers for nest sites. For more information on Starling control go to http://www.kansasnativeplants.com/yard_birds_europeanstarling.php FYI: I'm up to 110 starlings trapped.

April 27, 2014

I made a video of a Northern Flicker excavating its nest box. It had excavated all of the chips and I was worried so I added more. Still waiting for eggs to appear. Normally he doesn't just toss the chips on the ground but flies away with them. But it was so windy the day of my video I think he just tossed most out the hole and let the wind blow them away.

April 28, 2014

I just checked the flicker nest box. There are TWO eggs. They are unreal looking...translucent white eggs. This is WAY cool. I wonder how big of a clutch they will have. Interestingly the pair takes turns guarding the house. Just this morning, the male is standing guard and in comes the female.

She lands on the box. He flies away; She looks around and enters the box.

May 5, 2014

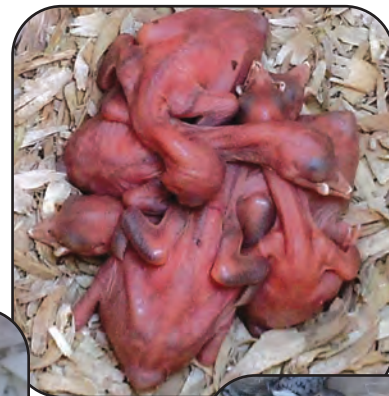
Well, I was gone for 3 days, and the flicker nest is gone. There are NO eggs, and a starling flew out of the nest box this morning. Does anyone know if the starlings would remove the eggs? Poor flickers. What is really irritating is there were empty nest boxes the starlings could have used but they had to destroy an occupied nest. It's what they do. —Depressed in Topeka

June 6, 2014

I checked the nest box yesterday and the Great Crested Flycatchers have SIX eggs. Last year they only had four. Pretty exciting. The bluebirds have brought all three of their young with them to the meal worm feeder. The young won't come down to the feeder but the parents take food to the young who are perched up in the trees.



Jeff Hanssen Photos



It was a "glorious experience." With constant attention to keeping Starlings at bay, with a continuous trapping program, Jeff's efforts paid off with the first success of Northern Flickers nesting in his yard this spring, 2015. First a male, and then a female, arrived in late March—with each drumming on the available nest boxes. By May 1 there were six eggs with the appearance of light rose pearls. With shift changes for brooding, five of the eggs hatched within a couple weeks. The first adventurous youngster was seen peering out of the nest box by June 2, being fed by the parents at the hole. The Great Crested Flycatchers nesting in another did a bit of diving and the flickers moved dining inside. On June 5 the two last fledglings left the nest, one in the morning and the other in the afternoon. One might say they were "climbing the walls" to experience the world.



Photo illustration/Ron Klataske Photos

Notable BRIEFS

Memorial

Contributions/Remembrances

The Audubon of Kansas extended family has lost a number of wonderful friends during the last couple of years. AOK has received memorial contributions as a reflection of their shared appreciation of nature and the natural world. We thank everyone who has honored their loved ones and friends in this manner. Though saddened, we are honored and committed to doing good work in their memory. They include the following:

Honorable James C. Johnson
Larry Haverfield
Christopher Silva
William Falk
Camilla Young
Margaret Kinne
Dana Bloom
Honorable Gene B. Penland
Denis Conley
Harold Lear

Awards and Recognition of Excellence

Periodically AOK presents a series of awards recognizing the exceptional work and leadership of uniquely dedicated people. The most recent awards were presented to **Senator Marci Francisco** for Exceptional Legislative Leadership; **Governor Mike Hayden** for his leadership on Water & Wetland Conservation; **Joyce Wolf** for a Lifetime Legacy of Leadership & Dedication for the Natural World and Audubon at Every Level; **Jayhawk Audubon Society** for Excellence in Leadership, Nature Education, Conservation Advocacy & Partnership Outreach; **Emily Hunter Connell** for her leadership Inspiring Appreciation for the Flint Hills' Natural & Cultural Heritage; and **Carol Klataske** for her dedication & tireless work as Volunteer of the Year 2013-14. On the national stage, we all take pride in the Spirit of Defenders Award for CITIZEN ADVOCACY presented by

Defenders of Wildlife to **The Family of Larry Haverfield**. Another native Kansan, **Dr. Clait Braun**, received the SCIENCE award for his steadfast research on sage-grouse and other grouse species.

Quivira National Wildlife Refuge -

As a direct result of Audubon of Kansas' strong advocacy, and support generated from outreach, the US Fish and Wildlife Service planning team developed a Comprehensive Conservation Plan for the Quivira NWR that we enthusiastically endorse. We are appreciative of the Service's statement that, "*As part of the [plan], Quivira Refuge will be closed to all hunting activities when whooping cranes are present.*" AOK also emphasized the importance of protecting Black Rails and King Rails, and diminishing disturbance to these and similar species that rely on the wetlands. The new plan "*does not allow the hunting of certain species that are not common or are closely associated with potential impacts to species of concern, such as rail, woodcock, snipe, sandhill crane, and prairie-chicken.*" The importance of restoration of the refuge's wetlands and prairies was a central planning theme. Our comments and the plan can be viewed at http://www.fws.gov/mountain-prairie/planning/ccp/ks/qvr/documents/qvr_final/qvr_ccpfinal_appendixes.pdf

Horses Optional – AOK hosted trail rides on the **Hutton Niobrara Ranch Wildlife Sanctuary** in September. Nebraska riders with Paints and Quarter Horses joined Bob McElroy and Ron Klataske with Tennessee Walkers for the three day event, organized by Al Brock of Valentine as part of the Outlaw Trail Scenic Byway series of trail rides. Trails on the sanctuary are designed for hiking and horseback riding. The two guesthouses provide year-round lodging opportunities.

An AOK Conference:

Silent Spring 2016

Please reserve the date and plan to join Audubon of Kansas (AOK) on April 9, 2016 for the Conference: "*Silent Spring 2016: Threats to Birds, Bees and other Wildlife*" at the Lawrence Holiday Inn (just south of the West Lawrence I-70 exit). Registration will start at 8:00 am followed by the first presentation at 9:00 am with the re-enactment of Rachel Carson by Ann Birney. We'll have a screening of Stephen Lerner's film "When the Well Runs Dry" with commentary provided by Tom Averill and Matthew Sanderson. During other sessions there will be lots of information on habitat restoration at all levels, concurrent sessions on wildlife issues, and opportunities to visit with like-minded folks about various solutions to the threats to birds, bees and other wildlife posed by pesticides, loss of habitat and climate change. The final keynote will be given by Dr. Leonard Krishtalka, Director of the KU Museum of Natural History. Registration information is available on the AOK website (audubonofkansas.org). – Joyce Wolf, Evelyn Davis, Cathy Lucas, Mary Powell, & Beth Schultz, Conference Organizers.

Beneath and Before the Prairies: Geologic Events Near the Mt. Mitchell Prairie Area of Kansas

By Dort Wakefield, Jr.

Kansas is a prairie state, part of a vast lowland occupying much of the interior of North America. Glance at a small map of the continent and there it is, a seemingly endless field of grass waving in the ceaseless wind. But do not be misled. Look closer. There are, indeed, featureless flatlands, yet here and there these are interrupted by small areas of more irregular terrain, which on careful study, reveal subtle patterns of knobs, ridges, valleys and hollows – some linear, some circular. And if one is willing to explore just a few feet below the land surface, there is evidence of an even more complicated history during the recent past as well as through more distant times.

At first glance the whole region appears to be changeless, a landscape frozen in time. Discerning eyes can still identify remnants of trails, wagon ruts and campsites left by both explorers and settlers as much as two centuries ago. They remain today but they are disappearing rapidly, mainly through destruction by plowing and other agricultural practices. These vestiges are, however, just modern scratches on landscapes that developed episodically over hundreds of thousands of years.

Activity of Streams

An area extending a few miles south from the Kansas River and the towns of



Largest known erratic of Sioux Quartzite in Kansas. Located at glacial limit northwest of Dover.

Wamego and Wabaunsee is especially rich in evidence of past geologic changes. Passage of the Kansas-Nebraska Act by Congress in 1854 greatly intensified opposing efforts to legally permit or deny establishment of slavery in the new state of Kansas. Many settlers came to Kansas to provide votes either for or against the proposition. One contingent from New Haven, Connecticut arrived at the site of the village of Wabaunsee in 1855. Construction of the historic Beecher Bible and Rifle Church was completed in 1862.

The landscape around Wabaunsee was then very much as it is today; even minor features show very little change. The Kansas (or Kaw) River flows eastward past the town, carrying water and sediment from as far away as southern Nebraska and northeastern

Colorado. Its channel is incised 10 to 15 feet below the slightly uneven valley-floor flat that is comprised partly of floodplain and partly of slightly higher remnants of the first terrace. The entire floor is subject to inundation by the greatest floods, such as those of 1993, 1951, 1903 and 1844.

In general, the channel of the Kansas River is about 600 feet wide during average or high-volume flow, but drought reduces the stream to a few narrow, very shallow, discontinuous threads of water. At such time, the rest of the channel bed is occupied by an ever-changing maze of sand bars that slowly migrate downstream. No detailed study has been made of these features. Are individual sand bars seen one year, actually the very same ones that had been observed the year before? Or are they different?



Unusual concentration of Sioux Quartzite erratics covers a hilltop close to the glacial boundary west of Tower Hill.

As for most streams that flow through broad valley-floor flats, the Kaw channel has sinuously meandered back and forth from one side of the valley to the other. Maps in the “Atlas of Historical Channel Change of the Kansas River,” that was published in 2009, clearly depict channel migrations near Wabaunsee since the mid-1800s. Comparison of old maps shows river positions for eight intervals from 1885 to 2004.

Between 1940 and 1952 the channel just west of Wabaunsee increased its meandering and developed an abrupt loop toward the north. Then in the early 1970s, the base of the loop narrowed, and by 2004 was cut through so that the course became straight and two miles shorter. Similar meander cutoffs along the river elsewhere have resulted in a combined shortening of 25 miles of channel length between Junction City and Kansas City since 1850. There was no simultaneous change in the length of the confining bedrock valley. Consequently, the overall gradient has steepened.

Over somewhat longer periods of time this channel has sequentially occupied all parts of the floodplain from one bluff to the other. As the bank is eroded on the outside of a curve and old sediment is carried away downstream, deposition of an equivalent quantity of new sediment coming from upstream fills in on the opposing side. In this way the floodplain surface is being

The channel has at one time or another meandered across every part of the floodplain and has then moved away. This has led some observers to propose that the channel and its stream were at one time as wide as the entire valley-floor flat. That is a great misapprehension. Channel width is determined by the volume of water and sediment delivered from upstream, plus

local geologic history and the nature of the materials through which the channel is cutting. A proposal that the Kansas River per se was once three miles across cannot be supported by factual observations.

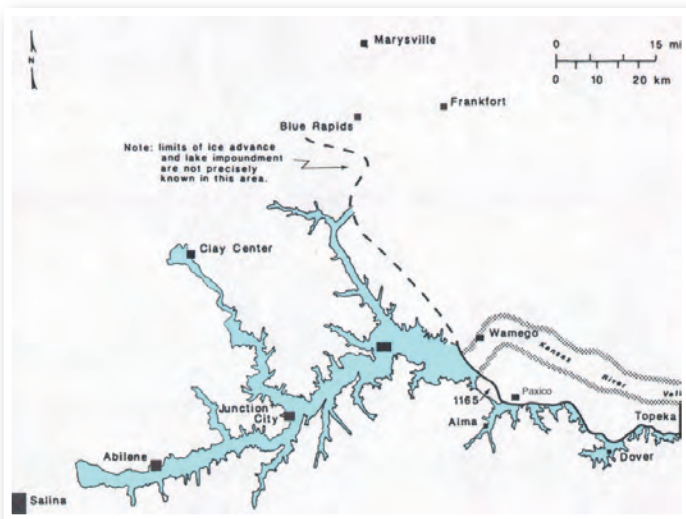
Sometimes lateral channel erosion will expose in the bank an ancient soil that had formed directly beneath an earlier floodplain surface, but subsequently became buried by later sedimentation. The

actual time of formation of that soil can usually be determined by analysis of the quantity of radioactive carbon present in

Nature is a vast tablet, inscribed with signs,
each of which has its own significance, and
becomes poetry in the mind when read; and
geology is simply the key by which myriads of
these signs, hitherto indecipherable, can be
unlocked and perused, and thus a new
province added to the poetical domain.

— Hugh Miller

continuously regraded through geologic time, measured in hundreds to thousands of years.



Kaw Lake, impounded by maximum ice sheet advance, drained eastward through a spillway at 1,165 feet elevation south of Tower Hill.

enclosed organic matter. The amount of radiocarbon in the buried soil decreases at a known rate as soon as organisms die.

If the floor of a valley is being raised by net addition of sediment over the years, the surface, which is the top of the most recent deposition, will be flat and nearly featureless. But on the other hand, if there is a prolonged episode of net erosion, the stream will cut a deeper channel at a lower elevation. Once a new equilibrium has been established, whatever remains of the former floodplain becomes a step or terrace above the new stream level. As erosion continues, that terrace will be progressively dissected by tributary streams of all sizes and evidence of the change will gradually disappear.

A very prominent example of such a terrace is present south of Wamego. Kansas State Highway 99 traverses the Kaw floodplain south from the bridge. The presence of sand pits west of the highway attests to the depositional origin of the landform. At a point two and a half miles south of the river there is a steep rise to another nearly flat surface. That is a terrace, a prominent remnant of a former floodplain that once extended across most of the width of the valley when the river was flowing something like 40 feet above its present elevation and was located close to Wamego. For some as yet unknown reason the river began to cut down. At the end of that

episode, the Kaw channel lay at the base of the scarp that crosses Highway 99. Then it migrated back north horizontally to its present position adjacent to downtown Wamego, and formed the present floodplain as it went.

No date has been established for this channel down-cutting and migration. It preceded the earliest mapping of the area, but was not a long

time before. The scarp crossed by Highway 99 has been only slightly eroded by small gullies, even though that steep surface is presumably underlain by easily erodible sand. Erosion has just begun. Drilling on that high surface would probably produce samples that could yield a radiocarbon age date. Just as a guess unsupported by any scientific study, the upper terrace surface might be 5,000 year old.

Long-term Episodic Glaciation

The preceding paragraphs have described evidence that permitted compilation of a fairly complex geological history for an area near Wabaunsee and Wamego during the past 200 or so years. There is no compelling reason to suppose that earlier times were less active. However, if we extend our attention back from 200 years to one or two million years, traces are found of several other geological events.

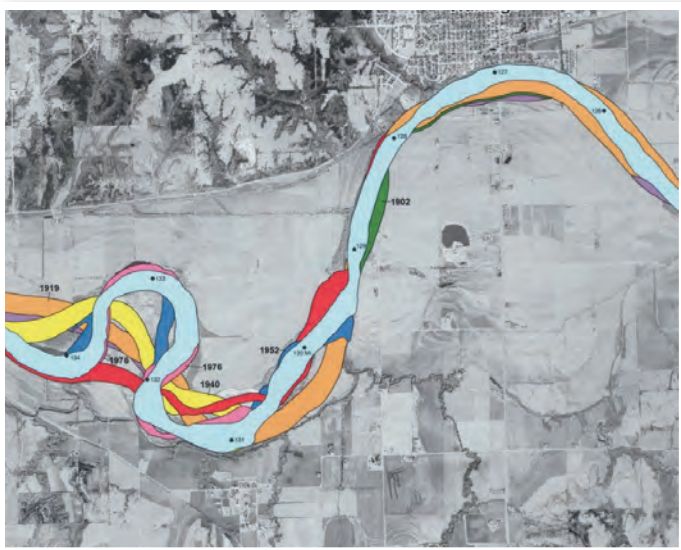
Approximately six and a half miles southeast of the Wamego bridge and three miles southeast of Mt. Mitchell Heritage Prairie Preserve is Tower Hill, a feature colloquially named for the communication tower

located there. Because this is the highest elevation in a large area, excellent views are provided. Seen is a varied landscape of hills and valleys that contrasts sharply with the Kaw Valley floodplain previously described. The terrain is different and so is the geologic history that produced it.

When approaching Tower Hill, even a casual observer might notice loose boulders of a distinct purplish-pink color scattered along the roadside and in adjacent grasslands. Some rest on the surface of the underlying near-white limestone bedrock, some on the superficial soil. Quick inspection reveals that almost every one is composed of quartzite, a metamorphic rock formed by re-compaction and re-crystallization of an ancient silica-rich sedimentary sandstone and conglomerate. This is not present as bedrock anywhere in Kansas. In fact, it is well known that this rock occurs at the Earth's surface only in southwestern Minnesota, plus a bit in adjacent southeastern South Dakota, and a very small area in northwestern Iowa. It is officially called the Sioux Quartzite and is of Precambrian age. This small area must have been the source of the boulders on Tower Hill; no other source is known to exist. Loose pieces of rock resting on bedrock of a distinctly



Southern limits of "younger" and "older" glacial advances in the vicinity of Tower Hill. Eastern end and controlling spillway of Kaw Lake to left.



Present and former courses of the Kansas River near Wamego and Wabaunsee. Numbers next to channel segments are dates of source maps. Small numbers within channels are river miles from Kansas City.

different type and origin, as in this case, are termed erratics. They may also be called indicator rocks if some aspect of their composition clearly indicates their source or origin. Size of these fragments depends on the type of rock the glacier is attacking and the spacing of weak near-surface fractures and joints. In general, a glacier has the power to dislodge any loose rock encountered.

Present distribution of Sioux Quartzite boulders in the general vicinity of Tower Hill appears to bear no relationship to local topography. They are not concentrated on the floors of small valleys, not on hilltops, nor on slopes that face in any specific direction. However, there is in this area a clear, though irregular, linear boundary beyond which no Sioux boulders occur farther south. Here is a situation that demands an explanation.

There has been no river to carry them southward some 400 miles from the Minnesota outcrops. There is no slope down which they could have slid. The only scientifically reasonable explanation is that during the era of the Pleistocene Glaciation masses of Sioux Quartzite were picked up by the over-riding Laurentide Ice Sheet and carried southward to its terminal position in northern Kansas. The irregular linear

boundary of boulder occurrences is thus interpreted as marking the southern-most limit of advance of the ice sheet. That rocky boundary can easily be followed from west of Wamego, thence easterly along the general line of Highway I-70 to Topeka, Lawrence and Kansas City. On Tower Hill the boundary lies a few hundred feet down the south-facing slope.

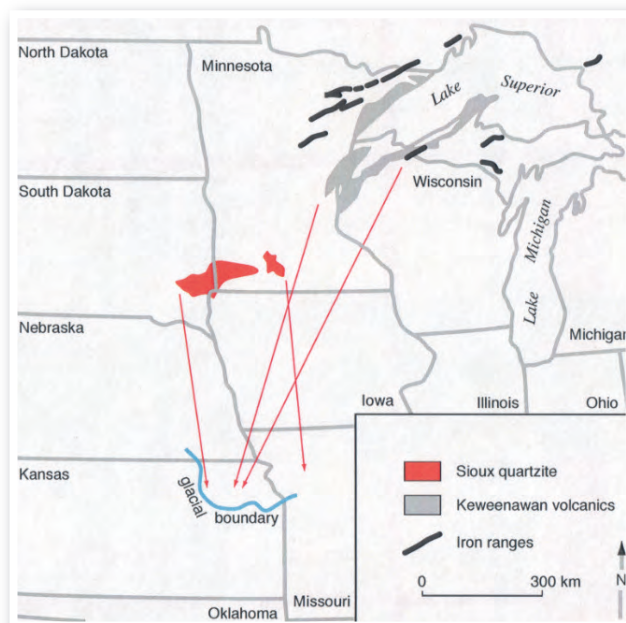
Initial ideas about a former time of colder climate accompanied by regional development of numerous mountain glaciers and vast ice sheets on surrounding plains began to be expressed in Europe by the 1860s. (Note: that was just when the Beecher Bible and Rifle Church was established in Wabaunsee.) Evidence of the former presence of ice sheets in the American interior, including northeastern Kansas, was recognized in the 1870s. However, even after 150 years of investigation, there is much more that can be learned from further detailed studies of glacial deposits in northeastern Kansas.

If the preceding interpretations are correct, then we know the origin of the Sioux Quartzite boulders on Tower Hill as well as on Mt. Mitchell. They came from the southwestern Minnesota region and were transported to the area by a prehistoric ice sheet. This scenario has been bolstered by discovery, mainly in the vicinity of Topeka, of

fragments of other indicator rocks such as agates and native copper from the Keweenaw Peninsula of Upper Michigan, and iron ore from the western end of Lake Superior. All identifiable erratics signify ice flow from the north or north-northeast. We also know that at least some rock fragments found in northeastern Kansas have been carried approximately 350 miles, and a few may have come as far as 700 miles without being ground up and destroyed within the conveying glacier.

It is probably a general public impression that during the maximum glaciations of North America, ice covered all of the land from the Atlantic coast westward to the Rocky Mountain Front, and from the North Pole southward to some vague line that crosses the middle of the continent, and all ice that actually reached Kansas really came from northern Canada. Well, yes and no.

As studies progress, new evidence points to more and more complexities – a characteristic so often true in research. Ice indeed was continuous for the entire north-to-south span. However, glacial ice is formed by compressive re-crystallization of snow which in turn, might sometimes have come from local storms. This means that some of the ice that had at one time covered Wamego



Glacial transport of indicator rock types brought erratics to northeastern Kansas.

may really have formed from snow that had fallen nearby and had been adsorbed into the mass of ice that actually did come from Canada.

If an observer could have stood on Tower Hill, let us just say vaguely one million years ago, and looked toward the north, he would have seen the Kansas River Valley appearing very similar to the view today. But a few miles farther north there would have been the advancing front of the ice sheet. As decades or centuries passed, the ice would have moved forward, downhill, until it reached the ancestral river in the bottom of its valley.

Then what? Glacial ice “flows” only in response to a pressure gradient. In this example, a pressure differential or push from the north must have been great enough to overcome resistance exerted by any impeding landscape features and also resistance to internal deformation of the ice itself.

There is no way that the advancing glacier could have over-topped Tower Hill, as the presence of Sioux Quartzite erratics on its summit demonstrates actually happened, unless and until the Kaw Valley had been completely filled by ice. In fact, a southward pressure gradient must have been established all the way across that void. So, the elevation of the ice surface north of the valley must have been built up 100 to 200 or more feet higher than the bedrock summit of Tower Hill to the south. The presence of boulders on and even slightly south of Tower Hill shows that these relationships were achieved. Tower Hill now rises almost exactly 300 feet higher than Wamego. So it is reasonable to estimate that at maximum glaciation the ice was between 400 and 500 feet thick on top of the town site.

One final local consequence of the advance of the ice sheet to Tower Hill

must be mentioned. As the ice front crossed the ancestral Kansas River, it at once became a huge dam that extended northwestward from Tower Hill to the

sheet. A small pond was impounded wherever the glacier front formed a local dam across the mouth of a tributary stream that flowed northward toward the ice-filled river valley.

Apart from its healthful mental training as a branch of ordinary education, geology as an open-air pursuit affords an admirable training in habits of observation...(it) sets before us problems of the highest interest regarding the history of the ground beneath our feet, and thus gives a new charm to scenery which may be already replete with attractions.

— Sir Archibald Geikie

Even though most people express at least a casual interest in chronological knowledge, few pertinent facts are available for this report. During the last century it was taught that the Pleistocene Epoch, or Great Ice Age, began one million years ago. Recent discoveries in east-central Missouri clearly demonstrate that advances of continental ice sheets occurred there

at least two million years ago.

At present, it is impossible to identify a reliable age for the glacier’s advance onto Tower Hill. A broad guess might be in the vicinity of 700,000 years. However, it must be noted that very small exposures north of the summit of Tower Hill, and in a house excavation to the west, reveal the presence of a glacial deposit that is much older than the surface unit that is filled with Sioux Quartzite boulders. It is characterized by the presence of rotten, iron-stained boulders of several types of granite. Its age may exceed a million years. These two glacial deposits record the farthest advances of ice sheet southwestward across North America.

present location of Wabaunsee, and from there to St. George and into the hilly terrain beyond. Runoff from precipitation in the western headwaters of the entire Kaw drainage basin continued its pre-glacial flow eastward, but no significant quantity could pass that blockage, and consequently, impoundment of a lake began collecting water from rain and melting snow. The elevation of its surface rose, and the head of inundation extended farther and farther upstream to the west, ultimately reaching nearly to the present location of Salina. At last overflow began through a small notch in the high ridge on the south side of the basin. Water could then escape eastward along the front of the ice

Wakefield Dort, Jr. PhD is Emeritus Professor of Geology at the University of Kansas, where he started teaching in 1957. Before that he taught at Duke and Penn State. Wake, as his friends call him, has degrees from Harvard, Cal Tech and Stanford. Even though he retired in 1993, he has continued his research studies of the Kansas River including authorship of “Historical Channel Changes of the Kansas River and its Major Tributaries,” published by the Kansas Geological Survey (Bulletin 252). Both his teaching and research have focused on the processes that shape the Earth’s surface, the land forms they create, and the deposits they leave behind (geomorphology). His initial major interest in glaciations involved studies in the northern Rocky Mountains where his interpretations of Ice Age phenomena provided details of the environments occupied by ancient Native Americans in Idaho (geo-archaeology).

TRAGICALLY, CONSERVATION OF NONGAME WILDLIFE, IMPERILED AND ENDANGERED SPECIES

...CONTINUES TO BE A LOW PRIORITY FOR THE STATE OF KANSAS

Conservation of wildlife is a challenge of the present, but it must be designed with the future—our children and grandchildren—in mind. Unfortunately, the approach of far too many people and entities is still grounded in the past. We are reminded of errors of the past in the following text from the small book, **INHERIT THE HUNT** by Jim Posewitz, included in the chapter entitled “FOUR HUNDRED YEARS OF CHAOS”

“As a pioneering culture spread westward, wildlife experienced its own equivalent of the Dark Ages. It was a darkness from which species like the passenger pigeon and Audubon’s sheep would not emerge.”

Are we now going to add Black-footed Ferrets (BFF’s), Lesser Prairie-chickens, and numerous other species to the darkness of extinction in the wild?



In 2007, shortgrass prairie landowners Gordon and Martha Barnhardt, Larry and Bette Haverfield, and Maxine Blank hosted reintroduction of BFFs on their ranchland in western Kansas. Their land, managed as one unit, continues to provide the best habitat for BFFs, Burrowing Owls, Swift Foxes, Ferruginous Hawks and Golden Eagles in Kansas.

This Report

is a second installment on the articles (pp. 42-45, 46-49) on the same subject in the Spring/Summer 2014 edition of *PRAIRIE WINGS*. As we have pointed out previously, it is concerning that the Kansas Department of Wildlife, Parks and Tourism (KDWPT) continues to: 1) issue resident and nonresident capture permits for the taking of Ferruginous Hawks even though they are becoming extinct as a nesting species in the state; 2) endanger Whooping Cranes by having sunrise to sunset shooting hours of Sandhill Cranes at Cheyenne Bottoms and other critically important wetland stopover sites; 3) allow liberal trapping provisions for the taking of River Otters and Swift Foxes—even though their populations are very limited in the state due largely to limitations of habitat availability, and their ecological and other values should be paramount considerations; 4) ignore and has not implemented any serious on-the-ground conservation provisions of the 2002 Black-tailed Prairie Dog Management and Conservation Plan; and 5) be an obstacle to federal Environmental Quality Incentive Program (EQIP) funding that could benefit recovery of endangered Black-footed Ferrets—and benefit many other species associated with prairie dog colonies.

As a member representing wildlife resource interests on the USDA State Technical Committee (STC), I have an opportunity to be an advocate for wildlife habitat conservation practices. Many of the other members naturally have other areas of expertise and priorities. Following the STC meetings of September 29-30, I wrote the following email to Robin Jennison, Secretary, KDWPT, and received the reply posted on the following page.



Conservationist Steve Sorensen and his granddaughter, Alexis Sanchez, are pictured as they await the release of additional BFFs during a visit in 2008. Alexis is shown helping Brenda Pace release a ferret on her parents' property.

Robin, [Cc. Kansas Nongame Wildlife Advisory Council (KNWAC) members]

I understand the recent KNWAC meeting at the Wetlands Education Center was a “good one.” I regret I wasn’t able to attend, but I was obligated to work that week at the Hutton Niobrara Ranch Wildlife Sanctuary.

I am confident that you will recall discussions we had during the conservation alliance/KNWAC meetings in Topeka a year ago, regarding EQIP funding approval for the Black-footed Ferret landowner partnership incentive program developed by NRCS and the Fish and Wildlife Service that is available to the states. You indicated that you would withdraw your earlier objection to it being an eligible practice for EQIP funding in Kansas. Your earlier objection was based on a concern to keep this program from competing for funds that might otherwise be going to other traditional wildlife practices. However, as we pointed out last year, only a small percentage of the funds allocated for wildlife practices in EQIP were used for wildlife benefit in 2014. With that in mind, you said you would not object to funding the program going forward (which for timing purposes meant for the 2016 EQIP program). As it turns out, only 1.5 percent of Kansas EQIP funds were utilized for wildlife this year in the 2015 program—although 5 percent has been set aside for wildlife practices as a guideline at the national level. Only \$281,463 was obligated, even though \$901,997 would have been available in Kansas if there had been applications.

Our request to you is for you to contact Eric Banks (NRCS State Conservationist) as soon as possible to request that the Black-footed Ferret practice/program be included in the 2016 Kansas EQIP. Unfortunately, it will take quick action to get the program in place for enrollment. This consideration is made more feasible because there aren’t likely to be more than three landowners eligible and ready to apply. Thus, if Eric allows it to proceed it shouldn’t be a problem to get specs in place prior to the November 15 deadline for EQIP applications. The program is operational across the state line in Colorado, with five BFF recovery sites included and approximately 15 landowners enrolled. Others are also interested. Ken Morgan, Private Lands Coordinator for the Colorado Department of Wildlife, is an ideal contact if you need additional information. As additional contacts, Pete Gober and John Hughes with USFWS are also well informed and involved. And, Patty Knupp with NRCS in southeastern Colorado is another person on the ground making this program work in Colorado. **The same could occur in Kansas, and it would demonstrate that the State of Kansas is interested in taking proactive steps with landowners to make conservation of threatened and endangered species possible.**

Thanks for all you can do. Please let us know if we can be of assistance.

—Ron Klataske



Ferruginous Hawks are largely dependent on Black-tailed Prairie Dogs as prey in the Great Plains. With widespread poisoning of prairie dog colonies, and secondary poisoning when Rozol is used, these raptors are now an imperiled species.



Ron Klataske photos

Ron,

As you know, the past several years the allocation to the Wildlife funding category had been 2-3% of the total general EQIP funds provided to Kansas. This amounted to approximately \$350,000 to \$500,000 per year. We typically obligate \$250,000 to \$350,000 of those funds. When the question came up during a KTC meeting a few years ago concerning the possible development of a BFF recovery program in EQIP similar to Colorado’s, our position was we were concerned it would draw funds away from other priority species, so we were not in favor of pursuing the program for Kansas at that time.

With passage of the 2014 Farm Bill, by current law at least 5% of EQIP funding is to go towards wildlife. Ron, you are correct that our 5% allocation would have been \$901,997 last year and we obligated \$281,463, leaving a significant amount of dollars that were shifted to other resource concerns within the state. We have been making efforts with NRCS to increase participation from landowners using this funding source for wildlife.

Although you believe “it shouldn’t be a problem to get specs in place” before a sign-up deadline in November, it is my understanding, NRCS staff at the meeting stated they have no technical guidance or specifications developed at this time for: 1) proper grazing to benefit prairie dogs, 2) exclusion methods to keep the prairie dogs off neighboring properties and 3) monitoring protocols for landowners. Much work and time will be required to develop these practices and technical guidance documents.

The Department believes the position Matt Smith (KDWPT area biologist) stated at the meeting was the best path forward, on what will certainly be a controversial BFF recovery initiative, should be a landowner driven effort, where a coalition of several landowners or a cattleman organizations come together at the local level to request the kind of technical and financial assistance needed to conserve the species. The effort in Colorado was led by the cattleman’s association, without their support any effort would surely be doomed to fail.

The reality is there are only a handful of landowners that have an interest in prairie dogs and BFFs. There are questions surrounding the suitability of Kansas for BFF recovery efforts and NRCS does not have the technical expertise at this time to develop a program in a short time frame. And of course there are the legal issues surrounding having prairie dogs on private lands in Kansas which other states do not have.

Bottom line is yes there are funds to implement a BFF recovery program in EQIP in Kansas but we have many unanswered questions regarding the feasibility and potential benefits from such a program.

Our opinion is we should focus on those priority species and landscapes already identified within the EQIP Wildlife Ranking Category. Therefore our efforts will have a measurable effect when there is widespread willingness from landowners to improve and conserve appropriate habitat for those species.

—Robin Jennison

Editorial Comment:

Conservation of endangered species is currently beyond the realm of “priority species” in Kansas. Much of the “time” and energy in recent years by KDWPT was devoted to trying to keep the declining Lesser Prairie-chicken population from being recognized as threatened, while the department simultaneously expanded hunting seasons in 2012. The new push by KDWPT is to *utilize* the EQIP funds designated for wildlife to construct fencing around expiring CRP fields so they will remain in grass as grazing land. After ten to thirty years of federal payments to landowners (easily totaling up to \$1,500 per acre), it is good when they decide to keep established grass on the land. However, it is most clearly a *livestock practice* more than a wildlife practice, and a large percentage of EQIP funding (a target of 60%) is already obligated to grazing lands and livestock waste practices. These two categories obligated \$6,604,301 in 2015. NRCS staff no longer consider the needs of wildlife as a secondary resource concern with “grazing lands health” practices—unless requested by a landowner. The emphasis is often on maximizing forage production and uniform grazing—often to the detriment of wildlife habitat needs.

It is true that there won’t be a requirement for “much work and time” for KDWPT and NRCS to promote fencing practices—we know how to build fences! However, I objected to the proposed idea of funding woven wire fences in Pronghorn range. Normal 4-strand barbed wire livestock fences with the bottom one barbless and 16-inches above the ground should be used, as we recommended several years ago.

If “numbers” of landowners involved is used to judge the environmental value of a practice and the associated cost, we note that only 32 applications for livestock waste were filed—and they used \$2,742,589 in EQIP funding. In the past there have been occasions when only a handful were funded in a year, and some of those feedlot and confined hog operations (both new and established) have required hundreds of thousands of dollars each.

Ag organizations routinely state that conservation of threatened and endangered species on private land should be based on ***voluntary incentive programs***. Since Kansas landowners are presented with an absence of leadership from KDWPT, we are hoping that the Kansas Livestock Association can provide it in a way that their members have done with phenomenal support for conservation easements.

The cost of the BFF program is very low on a per acre basis (less than \$15 per acre annually for a three-year EQIP contract). That is a small fraction of the per acre payments made to thousands of landowners for CRP contracts. Additionally, in spite of any suggestion to the contrary, the program involves control of dispersing prairie dogs and Safe Harbor Agreement protection for adjacent landowners. If the Colorado wildlife agency can work with NRCS and interested landowners to make it “a resounding success,” surely it can be accomplished across the state line in Kansas, Nebraska and other states.

Who would have ever thought that our state’s wildlife agency would become a primary roadblock to conservation of imperiled species?

—Ron Klataske

TAKE TIME TO ENJOY OUR NATURAL WORLD, AND ONE ANOTHER.



As illustrated in this photograph, this young couple is enjoying the shallow waters of the Niobrara River at the Hutton Niobrara Ranch Wildlife Sanctuary.

Appreciation of our natural world is important. Don’t hesitate to be more actively involved. Join this young lady and **MAKE THE JUMP!!!** Olympia joined the Audubon of Kansas family as a “Wildlife Partner” when she became our youngest member.



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