



# Prairie Wings

Advancing Conservation in the Great Plains 2018



# A LETTER FROM THE CHAIR

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Ron Klataske  
Ryan Klataske

I could not have been more wrong.

When I first agreed to serve as chair, I did so out of obligation.

AOK, in the person of Ron Klataske, had in the past stood shoulder-to-shoulder with my husband and me in battles to defend the prairie habitat in the Flint Hills where we live. One of those battles was the wind-wars—to keep industrial wind turbines from being sited in native prairie. Another was the fight against invasive plants—the introduced Old World bluestems that threaten the prairie ecosystem.

So when Ron asked me if I would serve, I felt I could not say no—I felt I owed.

I was then spending most of my time restoring our former crop fields to bottomland prairie—or rather, I was out in the fields while Mother Nature went to work. She brought in a succession of native plants (at least half of which were volunteers, not the seeds I had planted, though she nurtured those, too), accompanied by a surprising succession of insects, spiders, birds, reptiles, amphibians, and mammals.

It was my daily joy to be outside amid the forces of creation!

Hence, I dreaded the consequences of saying yes. What could be more of a come-down than to leave the bloom and buzz of our fields to spend time in dreary buildings in meetings with human beings?

But once involved, I learned that AOK would take me more deeply into restoration, not away from it. Now I am close not just to my own land but to all the properties included in AOK's Sanctuaries Initiative, as well as to those maintained by Audubon chapters. In addition, environmental injustices, which I had previously felt powerless to change—such as the stealing of water from Quivira National Wildlife Refuge—I can now through collective action help to set aright. And just as bottomland restoration has been my constant teacher, so connections with the amazing people in AOK—with their vast knowledge of birds, other wildlife, geology, hydrology, biology, and ecology—are drawing me ever closer to the land.

It turns out, AOK is a multiplier, not a subtractor!

Forget obligation, with its external goads. My actual experience is wholehearted delight.

AOK is restoration squared!







Two juvenile prairie dogs cautiously peer from their burrow at the Niobrara Sanctuary. Photo by Ron Klataske

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Photo by Ron Klataske





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Ron Klataske, Executive Director, Audubon of Kansas

Photo by Ryan Klataske

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' annual or sustaining monthly contributions and gifts to fund special projects. We thank you for your continuing dedication and generosity. Donating online allows monthly giving. We use PayPal to ensure our donors a safe and secure transaction. Other ways to contribute include bequests, memorials/tributes, and gift memberships. Please consider contributing at this time. Contributions from required distributions of IRAs can be made without accruing any tax obligation from the distribution.

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By establishing a planned gift to Audubon of Kansas, you can ensure that AOK continues to be equally or even more effective into the future. We are committed in perpetuity to stewardship of our sanctuary system. We have outlined several ways to establish a planned gift below:

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**Make a Gift of Stock or Bonds.** Contributions of appreciated stock or bonds held for more than one year are most advantageous. Your gifts will provide a larger financial contribution to Audubon of Kansas, and you will avoid capital gains liability.

**Include a Bequest in Your Will or Trust.** You can designate specific property, a fixed dollar amount, or a percentage of your residual estate, for the benefit of Audubon of Kansas.

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*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. AOK's Federal Identification Number is 48-0849282.*

**Make a Gift of Land, or other Real Estate.** Gifts of real estate or other property are excellent ways to establish a major donation. Gifts of real estate property that can be sold with the proceeds

to be used to support general or specific Audubon of Kansas programs are often referred to as "Trade Lands." Some parcels may be protected with conservation easements prior to sale. Proceeds can be designated, for example, for specific conservation, education or even stewardship of an established AOK sanctuary.

**Gifts of Land to be Maintained as a Wildlife Sanctuary** (such as the Connie Achterberg Wildlife Friendly Demonstration Farm or the Hutton Niobrara Ranch Wildlife Sanctuary) or permanently preserved generally require establishment of an adequate endowment to fund future operations, pay annual property taxes, and provide for ongoing stewardship of the property. Gifts of land for this purpose must be consistent with the Audubon of Kansas mission, or generate funds that support stewardship and other conservation or educational activities. Protection of lands is best achieved with advanced planning. Landowners can elect to make a gift of land while retaining a life estate. Thus, they obtain tax benefits and continue to retain normal use and management of the property. Conservation enhancement activities can become a partnership venture.

**Cars for Conservation!** Farm and Ranch Equipment can also be used at AOK Sanctuaries. Although AOK has not promoted this avenue of philanthropy, vehicles and similar property can be donated and then sold to generate funds for AOK operations. In addition, AOK is interested in receiving an energy-efficient vehicle to retain for business travel.

**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 this region.

Please contact any of our Trustees or AOK professional staff at 785-537-4385 or email [AOK@AudubonofKansas.org](mailto:AOK@AudubonofKansas.org) for additional information.



Photo by Ron Klataske

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The Mission of Audubon of Kansas includes promoting the enjoyment, understanding, protection, and restoration of natural ecosystems. We seek to establish a culture of conservation and an environmental ethic.

*Prairie Wings* is a publication of Audubon of Kansas, Inc. Additional newsletters and AOK E-News are published periodically. See our website at [www.audubonofkansas.org](http://www.audubonofkansas.org) and [www.niobrarasanctuary.org](http://www.niobrarasanctuary.org).

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# Audubon of Kansas is Working to Restore Quivira National Wildlife Refuge's Water Rights

DICK SEATON

Snowy Plover at Quivira National Wildlife Refuge.  
Photo by David Seibel

Quivira National Wildlife Refuge attracts hundreds of thousands of ducks, geese, shorebirds, wading birds, and water birds annually. Located in the middle of the Central Flyway, it is in the primary path of many species of migrating birds. Three hundred forty species have been recorded on its 22,135 acres.

But the water which is its lifeblood is being increasingly sucked up by irrigators upstream in the Rattlesnake Creek Basin. Despite owning a water right which is senior to 95 percent of those in the Basin, the Refuge has suffered severe and frequent violations of its rights by junior users. Result: groundwater in the Refuge's 7,000 acres of wetlands has been "regularly and substantially" lowered, according to a 2015 report by the Kansas Division of Water Resources (DWR), the state agency that grants and monitors water rights.

The DWR reviewed shortages at the Refuge and found they exceeded 3,000 acre-feet in eighteen out of the thirty-four years prior to 2015.

Quivira is one of thirty "Wetlands of International Importance," under an international treaty from 1971. It became part of the Western Hemisphere Shorebird Reserve Network in 1994, and was designated a Globally Important Bird Area by the American Bird Conservancy in 2001.

Audubon of Kansas believes it is critical to restore the water to which the Refuge is legally entitled. For that reason, it recently sent a letter to DWR demanding that this be done. The letter, written and reviewed by legal counsel, cites federal and state laws which:

(1) prohibit reductions of the Refuge's water rights, (2) bar drilling and pumping of subsurface water to make up for the violations, and (3) require environmental and administrative reviews. It distills the binding law into a series of requirements for successful resolution of Quivira's impairment, and proposes several solutions.

Quivira sees tens of thousands of Sandhill Cranes each year, as well as many Whooping Cranes—which were once reduced to a population of sixteen total and are an endangered species. Recently, forty-nine Whoopers were observed there on a single day. The Refuge hosts a nesting population of Least Terns, also an endangered species, as well as Snowy Plovers, which are classified as Threatened in Kansas.

Many, many other species of conservation concern depend on Quivira and its water, including Piping Plovers, Black Rails, Black Terns, Eastern and Western Hognose Snakes, Ferruginous Hawks, Golden Eagles, Long-billed Curlews, Short-eared Owls, and Southern Bog Lemmings.

AOK's letter was signed by the chair of its board of trustees, Margy Stewart, and its Executive Director, Ron Klataske. Copies went to the U.S. Fish and Wildlife Service, which manages the Refuge, and to the U.S. Department of Interior, as well as the groundwater management district comprising most of the irrigators upstream.

The letter can be accessed on AOK's website at [www.audubonofkansas.org](http://www.audubonofkansas.org).



# Water in Kansas:

## Where We've Been, Where We're Headed

REX BUCHANAN

For the past few years, the state's water community has been developing a 50-year water vision for the state of Kansas. The state's water agencies held hundreds of public meetings and conversations, gathering input from an unprecedented number of organizations and individuals. The result (on-line at <https://kwo.ks.gov/water-vision-water-plan/water-vision>) focused largely on two major issues facing the state: groundwater level declines in the Ogallala aquifer and sedimentation of large reservoirs, mostly in eastern Kansas. But public input made it clear that water quality was also a priority across the state.

As part of the process, fourteen regional teams were created to identify water issues in their areas and establish goals for addressing those issues. The planning process engaged many groups, individuals, and businesses, and created a heightened level of interest and concern in the state when it comes to water. But the 2017 Legislature failed to come up with sustained funding for the projects identified by this process.

Some of the problems identified are long-standing. Groundwater declines in the Ogallala aquifer, for example, have been an issue for decades. The Ogallala underlies about the western third of the state, and is the source of water for an economy based on irrigation. As early as the 1940s, there was recognition that groundwater supplies in the Ogallala were not infinite, and by the 1970s the state took steps to address long-term declines related to groundwater pumping. Based on the theory that local citizens understood and could best deal with the issue, five groundwater management districts were created. Using a variety of new technologies, irrigators became more efficient.

But water levels continued to decline. In places, wells no longer supported high-capacity pumping and landowners returned to dryland farming. And while various management scenarios were discussed, none was particularly popular. In places, eight intensive groundwater use control areas (IGUCAs) were established by the Division of Water Resources of the State Board of Agriculture. IGUCAs required various "corrective actions" to address problems. But the last IGUCA was created in 2008. Short-

ly after that, irrigators in northwestern Kansas developed the concept of a Local Enhanced Management Area (or LEMA), where landowners voluntarily cut back water use by twenty percent in an attempt to extend the life of the aquifer. That area, largely in Sheridan County, was called Sheridan 6, and early results show that it had a positive affect on water levels, without a dramatic reduction in crop production.

Though LEMAs show promise as a management tool in dealing with groundwater declines in western Kansas, only one has been created thus far. The Northwestern Kansas Groundwater Management District has taken the first steps toward forming a district-wide LEMA, and conversations have taken place in other areas, especially in Finney and Kearny counties, where water-level declines have been severe.

The water vision process clearly sparked conversations about other ways to slow declines in the aquifer. There was renewed interest in improved technology, such as mobile drip irrigation systems and improved irrigation scheduling based on soil moisture probes, to make irrigation even more efficient. Also, recent research at the Kansas Geological Survey indicates that relatively modest reductions in water use (such as the twenty percent cutbacks in the Sheridan County LEMA) can extend the life of the aquifer substantially without huge impacts on production. In short, attempts at extending the life of the aquifer go on, with varying levels of success.

Reservoir sedimentation surfaced as an issue more recently, as a number of the state's reservoirs began to lose capacity to incoming silt. Because the state relies so heavily on those reservoirs for water supply, recreation, and wildlife habitat, allowing them to disappear through infilling is not an option. The Kansas Water Office, working with the U.S. Army Corps of Engineers, developed a first-of-its kind dredging project in John Redmond Reservoir in Coffey County, a reservoir that is particularly important for water supply but also particularly susceptible to sedimentation. That project, at a cost of about \$25 million, demonstrated the feasibility of dredging as a near-term solution to reservoir sedimentation, but also

Dry Arkansas River bed. Photo by Joyce Wolf





Illustration of the fourteen Regional Advisory Committees' territories, from the Kansas Water Office's website: [kwo.ks.gov](http://kwo.ks.gov)

called attention to the importance of preventing siltation in the first place. Given the scale of the issue and the substantial cost of dredging all of the reservoirs that need it, there is renewed emphasis on streambank stabilization to keep silt out of the reservoirs, though those remedies are costly as well, and their impact not completely understood.

Though in the water vision process, water quality was not immediately identified as a priority, it was a regular topic of conversation in public meetings. There was ongoing concern about blue-green algae blooms in the state's reservoirs; about high levels of various contaminants in the state's rivers; and about areas where nitrates, salinity, uranium, and other contaminants (both natural and man-made) cause problems for water use.

An area that received even less attention was reduced streamflow in many of the state's rivers and streams in western Kansas. The Arkansas River has generally been dry across much of western Kansas, from about Garden City to Great Bend, since the 1980s. Other smaller streams out west have also begun to experience drastically reduced flow, with an attendant impact on vegetation and wildlife that depends on that water. Tributaries of the Smoky Hill and the Republican River, for example, have seen substantially reduced flow.




Center-pivot irrigation depleting Ogallala aquifer. Photo by John Charlton/KGS

The causes of that reduced flow are not entirely understood, but factors include river-water diversion for irrigation and pumping from alluvial wells, those wells that neighbor a stream or river and take water from the same aquifer that supports the stream during dry times. As water levels in those alluvial aquifers are reduced by pumping, much of it for irrigation, less water is available to flow back into the stream when it is dry. Without that water, streams cease to exist.

In some ways, the identification of water issues in the state has once again highlighted the divide between eastern and western Kansas. The Ogallala is primarily a problem out west, and reservoir sedimentation generally only occurs in the east. Yet it's clear that water issues in the two ends of the state affect each other. The economic engine of western Kansas, based on irrigation, supplies considerable tax funding for the entire state. Depleted streamflows in western Kansas eventually have an effect on streamflows in the eastern Kansas. And the budget for dealing with reservoir sedimentation will undoubtedly have an impact on taxes paid all over the state.

The past few years have made clear the variety and magnitude of water issues facing the state. The water planning process also made clear the range of actions that need to be taken to deal with those issues. And that range of action requires a level of resources and commitment that, thus far, the state has not been able to provide. The next few years will determine whether the water planning process was a step in dealing with the state's myriad water issues, or if it was another attempt that was better at identifying issues than resolving them.

Rex Buchanan is Director Emeritus of the Kansas Geological Survey and Director of the Consortium to Study Trends in Seismicity at the University of Kansas.



# Invasive Old World Bluestems Spread Across the Great Plains

RON KLATASKE

They are stealth invasive plants. Few people see them coming, or recognize them when they first colonize an area. Most residents are not alarmed until these plants metastasize and are spreading in place and leapfrogging along roadways and into native grasslands. They are grasses from other continents, primarily Eurasia, and as grasses they are not initially conspicuous within established grasslands.

The two invaders that worry many of us most as they spread across Kansas and begin to establish a toehold along the southern edge of Nebraska are Caucasian bluestem (*Bothriochloa bladhii*) and Yellow bluestem (*B. ischaemum*). Collectively they are often referred to as “Old World Bluestems” (OWBs), including various cultivars of yellow bluestem (Turkestan bluestem and King Ranch bluestem).

Although these grasses are less palatable to cattle than our native warm-season grasses as they mature, and are often bypassed by grazers if there is any native forage

available, they have been planted in many southern states. Initially this was because they are so easy to establish. OWBs are aggressive and prolific seed producers. Like so many non-native plants, they were incorporated into experimental “trials,” selected as cultivars and promoted. After being approved for planting in CRP fields and other areas in Oklahoma and Texas, they escaped to blanket native grasslands. Extensive landscapes that were previously native grasslands have now been completely transformed to near monocultures of OWBs.

Solid stands of OWBs have inferior value as habitat for most wildlife. Native grasslands with native legumes and forbs offer far superior nesting, brood-rearing and year-round habitat for quail, prairie grouse and grassland songbirds. Dense stands of OWBs inhibit movement of upland game bird chicks, and are relatively devoid of invertebrate foods. The hispid cotton rat (*Sigmodon hispidus*) is one of the few animals that seem to thrive in the dense cover of OWBs—providing a benefit in some instances to hawks, owls and other predators. However,





Photo by Ron Klataske

there are generally no ecologically redeeming values of OWBs in Great Plains landscapes. Native grasses are more beneficial in almost every respect and much easier to manage.

With only a few exceptions, OWBs were not approved for CRP plantings in Kansas. However, test plantings were conducted at USDA Plant Materials Centers near Woodward, Oklahoma, in Texas and near Manhattan, Kansas. The Agricultural Research Center at Hays, Kansas established plots. Their progeny remain in the surrounding areas, especially in the Hays area. Throughout Kansas, however, the main portal for introduction and spread of OWBs seems to be along state highways, followed by county roadsides. They are also commonly seen on areas previously disturbed by construction activities, such as flood control levees and embankments on dams. OWBs easily establish and thrive more readily on disturbed sites than do native grasses.

The seed sources of these beachheads for OWBs are

seldom documented. Likely sources include contaminated native grass seed coming from southern regions and contaminated mulch used at construction sites. The contamination is then spread by roadside mowing and maintenance equipment. Transportation of hay harvested from OWB-infested areas is another potential mechanism for spreading OWBs far and wide.

Once firmly established, OWBs are very difficult to control, and it can be equally difficult to restore native grasses and forbs to the site. OWBs are allelopathic. Allelopathy is a natural mechanism where one plant produces chemicals that inhibit the growth of other plants. Studies at Oklahoma State University have determined that OWBs change the chemical composition and biota of soils in ways that reduce germination of a wide range of native seeds and inhibit the growth—and survival—of seedlings. Even leachate, water flowing through OWB leaves and litter, has this impact.

Control is particularly difficult because there are pres-



Although Caucasian Bluestem destroys and replaces almost all other plants, it grows in clumps with bare soil between the clumps, as shown along Carnahan Creek Road in Pottawatomie County following a spring burn. Thus, it is of little value for erosion control. As illustrated by a photo made in the fall on the other side of the road, the canopy of Caucasian Bluestem covers everything and then moves out across adjacent rangeland like an ecological cancer. Photo by Ron Klataske

ently no herbicide application methods that are sufficiently selective at eliminating OWBs without killing most of the native vegetation. Glyphosate and imazapyr are being used in field studies conducted at Kansas State University. Some applications of imazapyr have shown promise at controlling OWBs without totally eliminating all of the native warm season grasses in plots. However, one application will not solve the problem. To prevent extensive collateral damage to native vegetation, and extensive costs associated with control and site restoration, early detection and eradication of old world bluestems is extremely important. If they become widespread in the Nebraska Sandhills, one can imagine that the cost of control would be astronomical for ranchers.

Caucasian and yellow bluestems are both listed as “priority invasive plants” on the Nebraska Invasive Species Program website. The plants listed are defined as “non-native plant species that currently pose a threat to Nebraska’s native plant communities.” However, OWBs have not yet been classified as “noxious” weeds in Nebraska. In Kansas, they have not yet received notice as “priority invasive plants,” let alone been included in the list of noxious weeds to be controlled and eradicated in Kansas. If classified as noxious weeds, contaminated seed and hay would be controlled. Agencies and other land managers would be required to prevent establishment along roadsides and in other locations, provide eradication, and reduce further propagation or dissemination of such weeds in the state.

Although it is too expensive and impractical, if not impossible, to eradicate or substantially control OWBs

in Oklahoma and Texas, Nebraska can conceivably implement control measures that will prevent these invasive grasses from becoming widespread in the state. Likewise, it may not be too late for Kansas to stop these stealth invaders. Prompt and decisive action is essential. These invasive plants present a devastating threat to the productivity of native rangelands for livestock and the quality of habitat for grassland birds in the central Great Plains. The tallgrass prairies in the Flint Hills could eventually be overwhelmed by these invasives. Because the Kansas Department of Agriculture has abrogated the agency’s responsibility and failed to step up to the challenge of proposing and regulating these invasive grasses as “Noxious” plants, it is up to residents to request that classification on a county-by-county basis. The leadership of county commissioners will be important. Assistance with identification and control measures should also be provided to landowners. With or without awaiting designation, other governmental agencies, including the Kansas Department of Transportation and county road departments, need to identify and control OWBs on the lands they administer.

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This article (absent the final paragraph) was written for and published in the UNL Center for Grassland Studies Winter-Spring 2016 newsletter. In 2015 Audubon of Kansas sponsored a workshop on the subject near Manhattan for landowners and land managers, some of whom came from across the state. Additional workshops were held in conjunction with the Kansas Wildlife Federation in Hays and Greensburg.





## Recommended Reading

Photo by Ryan Klataske

An idiosyncratic selection of books about the flora and fauna of Kansas and the Central Plains, compiled by Richard Seaton and M. L. Donnelly

- Barnard, Iralee. *A Field Guide to the Common Grasses of Oklahoma, Kansas, and Nebraska*. U P of Kansas, 2004.
- Buchanan, Rex C. *Kansas Geology*. U P of Kansas, 2010.
- Collins, Joseph T. *Kansas Wildlife*. U P of Kansas, 1991.
- Collins, Joseph T. *Natural Kansas*. U P of Kansas, 1985.
- Collins, Joseph T., and Suzanne L. Collins. *Pocket Guide to Kansas Snakes*. Great Plains Nature Center, 2010.
- Frazier, George. *The Last Wild Places of Kansas*. U P of Kansas, 2017.
- Gress, Bob and Peter Janzen. *Kansas Birds and Birding Hotspots*. U P of Kansas, 2008.
- Haddock, Michael J. *Wildflowers and Grasses of Kansas: A Field Guide*. U P of Kansas, 2005.
- Haddock, Michael J., Craig C. Freeman, and Janet E. Bare. *Kansas Wildflowers and Weeds*. U P of Kansas, 2015.
- Halfpenny, James. *Scats and Tracks of the Great Plains*. Morris Publishing Co., 2007.
- Horn, Bruce, Richard Kay and Dean Able. *A Guide to Kansas Mushrooms*. U P of Kansas, 1993.
- Insects in Kansas*. Kansas Department of Agriculture, 2002.
- Johnsgard, Paul A. *Prairie Birds: Fragile Splendor in the Great Plains*. U P of Kansas, 2001.
- Johnsgard, Paul A. *Great Wildlife of the Great Plains*. U P of Kansas, 2003.
- Johnsgard, Paul A. *Sandhill and Whooping Cranes: Ancient Voices over America's Wetlands*. U of Nebraska P, 2011.
- Johnsgard, Paul A. *The Nature of Nebraska: Ecology and Biodiversity*. Bison Books, 2005.
- Johnsgard, Paul A. *Prairie Dog Empire: A Saga of the Shortgrass Prairie*. U of Nebraska P, 2014.
- Johnsgard, Paul A. *This Fragile Land: A Natural History of the Nebraska Sandhills*. U of Nebraska P, 1995.
- Kindscher, Kelly. *Edible Wild Plants of the Prairie: An Ethnobotanical Guide*. U P of Kansas, 1987.
- Kindscher, Kelly. *Medicinal Wild Plants of the Prairie: An Ethnobotanical Guide*. U P of Kansas, 1992.
- Owen, David. *Like No Other Place: The Sandhills of Nebraska*. U of Nebraska P, 2010.
- Penner, Robert L. II. *The Birds of Cheyenne Bottoms*. Kansas Department of Wildlife and Parks, Kansas Wetlands Education Center, and The Nature Conservancy of Kansas, n.d.
- Stephens, H. A. *Trees, Shrubs, and Woody Vines in Kansas*. U P of Kansas, 1969.
- Thompson, Max C, and Charles Ely, et al. *Birds of Kansas*. U P of Kansas, 2011.
- Thompson and Ely, *Birds in Kansas*. University of Kansas, Museum of Natural History, 1989, 1992, 2 vols.
- Zimmerman, John. *The Birds of Konza*. U P of Kansas, 1993.
- Zimmerman, John and Sebastian T. Patti, *A Guide to Bird Finding in Kansas and Western Missouri*. U P of Kansas. 1988.

# Prairie Dogs Bring Out the **WORST AND BEST** in Wildlife Stewardship

RON KLATASKE

Prairie dog pups stand alert at the Niobrara Sanctuary. All photos by Ron Klataske.

We aren't inclined to suggest that "Prairie Dogs R Us!" However, landowners and others with an interest in protecting the diversity of wildlife associated with prairie dog colonies often turn to Audubon of Kansas (AOK) for support. In many instances, and on three major occasions in the first five months of 2018, AOK was contacted for assistance in Kansas, Nebraska and South Dakota. All three requests involved prairie dog colonies that were threatened with eradication mandates or by actions resulting in destruction of this unique element of America's prairie ecosystem.

Occasionally, magnificent conservation partnerships evolve after we become involved and as we reach out to involve others. The most outstanding example of that occurred in September 2005 when Audubon of Kansas was contacted by Larry Haverfield and Gordon Barnhardt. It was immediately apparent that the prairie dog complex on their adjoining ranchlands was a promising site for reintroduction of Black-footed Ferrets. In spite of that, the county commissioners in Logan County were hell-bent on using state statutes enacted more than a century earlier to eradicate every prairie dog and send a bill in six figures to the landowners.

Few actions are more impressive than what these landowners and their families withstood — over a period of

ten years — to protect the natural integrity of their land and the wildlife that depend upon it. One of the first major gifts of optimism came a week before Christmas in December 2007. The U.S. Fish and Wildlife Service reintroduced fourteen captive-bred Black-footed Ferrets (BFF) to this ranch complex just prior to sunset that evening. The descendants of those ferrets, and others brought in since that first reintroduction in Kansas, remain the only BFFs occupying their ancestral homeland on the short



One of the first Black-footed Ferrets reintroduced in Kansas peers out of a burrow a few minutes after being released.



and mid-grass prairies of the state. BFFs depend on prairie dogs as their primary prey and the burrows as dens.

In a state with 52 million acres, the Kansas Farm Bureau, a number of county commissioners, and others have made it clear that they do not believe there is sufficient space any place in Kansas where there should be prairie dog colony complexes sufficient to support a recovery site for the federally endangered Black-footed Ferret. Their actions during the past twenty years suggest they prefer extinction rather than recovery of threatened or endangered species. Repeated litigation, political stunts and all manner of tactics were used against the landowners. Politically, they have paralyzed leadership of the Kansas Department of Wildlife, Parks and Tourism.

Black-tailed Prairie Dog colonies are, in many ways, like wetlands in a prairie landscape. They provide habitat distinctly different from the surrounding landscape. Distinct aspects include a complex of burrows surrounded by closely-clipped vegetation where visibility is key to survival. These colony complexes are used by numerous other species of mammals, birds, amphibians, snakes and turtles. Birds from Mountain Plovers to Upland Sandpipers and many other species utilize the above-ground insect resources and plant seeds. An array of raptors zero-in on prairie dogs as prey, with Ferruginous Hawks and Golden Eagles specializing in year-round pursuit of prairie dogs.

Burrowing Owls feed on insects and mouse-sized prey, but they depend on this special habitat and specifically the burrows for nesting and shelter. The burrows serve the same purpose as tree cavities used by Screech Owls and Barred Owls. Very few land birds nest in burrows on flat ground. Bank Swallows and Belted Kingfishers burrow into and nest in steep banks.

Prairie dog burrows are enlarged by Swift Foxes for their dens and also by Badgers. Swift Foxes are rare and imperiled throughout most of their former short-grass-prairie range—extending from Canada to Texas. But they thrive in a few small places where prairie dogs provide an abundant food base, including the Haverfield/Barnhardt/Blank ranches in western Kansas.

When the Logan County Commission sought to poison the prairie dogs on the 10,000-acre ranch complex with Phostoxin gas tablets dropped in burrows and covered with sandbags in 2007, three distinguished herpetologists prepared a report indicating that hundreds of thousands of amphibians, turtles (Ornate Box Turtles) and twenty-five species of other reptiles could be killed. Were it

not for the qualifications of Travis W. Taggart, Joseph T. Collins and Curtis J. Schmidt one would never suspect that so much life was associated with prairie dog colonies.

**Audubon of Kansas has been recognized as an organization unparalleled in our dedication to assist landowners and others with difficult wildlife conservation challenges in the central Great Plains.** As referenced above, AOK is often called to assist, and we have joined landowners on the front lines, supporting property rights and developing management strategies designed to address real challenges—on both sides of the fence when adjacent property is involved. It is ironic that states claim authority and ownership of wildlife, but landowners are mandated to control wildlife and are threatened with financial burdens from the applications of toxicants by county officials. In unique situations, when land is being developed for other purposes, we have provided leadership and hands-on involvement to rescue and relocate prairie dogs. A brief overview of the three most recent examples of AOK initiatives is provided below.

### **Kansas: Plagued by Eradication Attitudes and Antiquated Statutes**

One of the first requests this year was from a landowner, Greg Greenwald, in Lane County, Kansas. The county commission was poised to impose an order for this rancher to poison the prairie dog complex on his 3,600-acre property. On the two occasions when Mike Corn, an AOK trustee and a former editor for the *Hays Daily News*, and I visited the property in January and February, it was evident that the complex was a magnet for Ferruginous Hawks, Golden and Bald Eagles. One prairie dog carcass was being shared, or more accurately squabbled over, by three Ferruginous Hawks on the ground. A Golden Eagle was perched on a hill overlooking the scene, and Greg talked about the Bald Eagles that have remained throughout the year. It was immediately apparent that this ranch was an important wintering area for Ferruginous Hawks and eagles.



A Ferruginous Hawk stands over its prey while another takes flight on the Greenwald Ranch in Lane County Kansas.

Although the prairie dog population is controlled on the property, it is done with shooting rather than with poisons. It is not a wildlife refuge, and the shooting is considerable. Shooters come from different states, pay for the privilege and it has become a supplemental income. One would think that shooting organizations would rise to the defense of landowners who provide this opportunity. However, these organizations have been MIA when it comes to defending landowners who maintain prairie dog colonies with or without recreational shooting.

We recognize that prairie dog colonies are in and of themselves part of our wildlife heritage. Prior to European settlement of the Great Plains, they were likely the most abundant mammal on the North American prairie. Extending over millions of acres, they were like Bison, a keystone and foundational species that had significant effects on the ecosystem. When eliminated, their disappearance drastically affects ecosystems.

If forced by the county to poison the prairie dogs, the cost of toxicants and application would have been in the tens of thousands of dollars.

We worked with the landowner and developed a management, control, and conservation plan for the prairie dogs and the benefit of associated wildlife. Seasonal shooting, preferably with non-lead bullets, will continue with more targeting of boundary areas to diminish expansion onto adjacent lands where they aren't welcome. Lead fragments pose a threat to raptors that feed on dead prairie dogs. Use of toxicants will be limited. Raptor poles along the perimeter, and fences to exclude livestock grazing to allow for establishment of a strip of taller vegetation will diminish the expansion of colonies and dispersal onto neighboring land. Encouraging predation and utilizing vegetation are naturalistic management strategies.

Fortunately, the Lane County Commissioners were receptive to and approved the plan.

### **South Dakota: Agency “Extinctionists” Stalled in Court by a Strong-willed Ranch Woman**

In early May we were contacted by Susan Henderson, a rancher in Fall River County, SD. Although she doesn't have large numbers of prairie dogs on her 8,000-acre property, the county weed and pest control agency sent her a notification stating that they were going to come on her property to poison all of the burrows with Fumitoxin — a poisonous gas that, like Phostoxin, kills everything in the burrows. They estimated the cost of controlling a

40-acre prairie dog colony at \$8,800. And of course, they planned to charge her.

Ms. Henderson treasures wildlife on her ranch, including the Burrowing Owls that nest in the prairie dog burrows, and the Golden Eagles, Bald Eagles, and Ferruginous Hawks that nest on or near her property. She immediately filed a court action to halt any poisoning this spring and summer to protect the Burrowing Owls. Audubon of Kansas wrote a letter for her attorney to use establishing the fact that the agency's action would be a violation of the Migratory Bird Treaty Act. A similar letter had also been filed by the U.S. Fish and Wildlife Service, but the Fall River “extinction agency” (our term based on their demonstrated disregard for wildlife) planned to ignore that determination — citing the fact that the Trump Administration has recently indicated they are not inclined to enforce provisions of that Act in most situations. We also contacted conservation partners in the area to seek additional demonstrations of support in the lawsuit.

Fortunately, Judge Jane Wipf Pfeifle ruled on May 24 that the agency could not apply the poison gas, at least not during the Burrowing Owl nesting season. The agency's stated position was that even “one prairie dog is an infestation” and should be eliminated. Ms. Henderson plans to seek longer-term protection. She told the Rapid City Journal that,

“Hell will freeze over and you'll be able to ice skate on it before I'm going to allow this weed and pest board to put poison on my ranch.”

### **Nebraska: Prairie Remnants Disappear Within Agriculture Landscape, although a Spirit of Conservation Commitment Emerges**

On April 16, Maureen Franklin, a retired faculty member of Doane University contacted AOK. Decades earlier, the university, located in Crete, Nebraska, had been gifted a farm forty miles to the west in Fillmore County. It was being sold this spring to support other university purposes, as is routinely the case with properties donated to colleges and universities. Most of the farm was already cultivated. It is in the midst of an area where almost all lands are highly productive, cultivated and irrigated. The farm included a 40-acre parcel that had been a pasture in an earlier era and had not been plowed. Although it was





Volunteers, mostly with connections with Doane University, came to help set traps in our quest to capture prairie dogs from what had recently become a soybean field. Just for fun, Maureen Franklin named the first prairie dog captured and taken to the Niobrara Sanctuary "Millard," in honor of Millard Fillmore—since the site is in Fillmore County, Nebraska. It seems these many folks were set to prove Millard Fillmore's famous quote to be wrong: "May God save the country, for it is evident that people will not." Volunteers with the Nebraska Wildlife Rehab, Inc. in Omaha assumed responsibility for trapping for the last ten days in June.

a remnant prairie, it was afflicted with brome grass and other non-native invasive grasses. Funds for restoration and management were not readily available.

When rural lands are sold, it is common for new landowners to change management, and frequently pre-existing grasslands are converted to cultivation for production of commodity crops. It was assumed that was about to occur in this instance. Agriculture land prices are extraordinarily high in this area—from \$8,000 to \$10,000 per acre, and it seemed almost inconceivable that it wouldn't be tilled and irrigated since an irrigation system was already established for the majority of that farm unit.

Notably, however, it had a thriving prairie dog colony. This parcel had been used periodically for field studies by the biology department.

There was confusion among Nebraska conservationists relative to the prospect of preserving the grassland and keeping the prairie dog colony intact. We were told to hold off on discussion with the new landowner and that resulted in some delay. AOK agreed to help rescue the prairie dogs with a trapping and relocation initiative. However, it was then discovered that the land had been tilled several times with a large disc to prepare the seedbed to plant soybeans. The colony had also been subjected to intensive shooting from locals in the area under the



assumption that it was no longer a protected area and the prairie dogs would be incompatible in a soybean field or the adjacent corn field.

It was discovered that a substantial number of prairie dogs survived, and a number of dedicated Doane University faculty, former students and others from as far away as Lincoln and Omaha wanted to volunteer with us to trap and relocate some of the remaining prairie dogs. With a \$600 investment in live traps, we initiated trapping on May 21 and soon discovered that an extended strategy of pre-baiting with grain was needed, especially with this particularly terrified group of survivors.

Fortunately, the landowner who purchased the acreage was willing to accommodate a partnership plan between Audubon of Kansas, Inc. and Nebraska Wildlife Rehab, Inc. (NWHI) to continue trapping throughout the month of June. Together, the two organizations agreed to cover crop damages that continued to occur during that period. Ongoing contributions have helped with those and other expenses. Significant support came from the Audubon Society of Omaha, Doane University and a number of generous individuals. The Prairie Dog Coalition/ HSUS also pitched in with 150 additional traps and support.

The 223 prairie dogs captured have been relocated to AOK's 5,000-acre Hutton Niobrara Ranch Wildlife

Sanctuary in Rock County, Nebraska. With a scientific and educational permit in place from the Nebraska Game and Parks Commission, a prairie dog colony has been re-established there during the past six years. These prairie dogs, from the eastern-most surviving colony in the state of Nebraska, expand upon that conservation and educational mission of the sanctuary. An overarching goal has been to inspire appreciation and support for conservation of prairie flora and fauna.

In terms of highlighting the plight of prairie dogs and other wildlife lost with the conversion of prairies, it has been a successful conservation initiative. We've established that it is feasible to establish new prairie dog colonies when there are no other options for prairie dogs that are displaced from an altered landscape.

This challenge is accomplished at the Niobrara Sanctuary with selection of a 15-acre site with suitable soils contained within a "prairie dog fence" we developed, prepared with "starter burrows" dug with a 4" augur, close mowing of the vegetation within the colony, and establishment of tall vegetation surrounding it. **The sanctuary's mission has been successful; this spring in early May at least eight litters of pups were observed gathered on their respective burrow mounds. Prairie dogs add to the wildlife diversity and to the variety of experiences of visitors to the sanctuary.**

## Black-tailed Prairie Dog colonies are threatened almost everywhere they still exist in the Great Plains.

In many cases landowners who have prairie dogs on their land are being threatened by over-zealous county weed agents and county commissioners who impose eradication statutes that were enacted more than a century ago. It is difficult to understand why such statutes still exist. Eradication statutes were enacted in an era when the last great flights of Eskimo Curlews were slaughtered in the Great Plains, the last of the Passenger Pigeons and Carolina Parakeets were in captivity (soon to become extinct), and Bison were gone from the prairies along with many other species.

The *Kansas Black-tailed Prairie Dog Conservation and Management Plan* developed with involvement of a broad base of conservation and agriculture representatives and



Plastic bags filled with sand were used to seal burrows when Phostoxin was used to kill prairie dogs (and everything else) in burrows on the Haverfield Ranch in 2007. To preclude a court injunction the exterminator hired by the Logan County Commission came on the property on Labor Day Weekend when the courts were closed.

published in July 2002 called for repeal of the statutes and a series of conservation, research and educational measures. The last two politically appointed secretaries of KDWPT have largely ignored the plan. It simply draws dust on shelves in Topeka and Pratt. But, it fortunately can be read on the KDWPT website.

Audubon of Kansas needs your assistance and support. We are asking Kansas gubernatorial candidates if they will support repeal of the antiquated statutes of 1901 and 1903 that compel landowners to eradicate prairie dogs even if they don't wish to. Candidates for the state legislature need to address the same question. Repeal of the eradication statutes (K.S.A. 80-1201 thru 80-1208) must become a priority for the next legislative session.





Photo by Ron Klataske

# Dreams Becoming Reality:

## AOK Expands Its Stewardship of Sanctuaries

GARY L. HADEN

Sunny days and lots of conversation prevailed as Audubon of Kansas held open houses at wildlife-friendly farms in September and October. The open houses in Lincoln and Morris counties are part of AOK's evolving initiative to develop more partnerships with landowners and other donors that will allow for protection of land and provision of conservation stewardship in perpetuity.

The open houses were designed to acquaint people from various walks of life with AOK's goal of a robust sanctuary system and supportive endowment that will assure that lands donated to AOK or left to AOK as bequests are managed in perpetuity in accordance with the donors' wishes.

The emergence of a sanctuary program represents a serendipitous convergence of several personal visions. Some members of AOK had been interested in developing a sanctuary program for years, and AOK has for some time made it known that it would accept properties supported by monetary donations. Dreams began to mature into action when the late Connie Achterberg, a popular attorney in Salina, approached Ron Klataske, AOK executive director, after a presentation Ron had made in Salina. Connie Achterberg was seeking a permanent custodian for her childhood home—240 acres of farmland

in Lincoln County. A friendship flourished between Ron and Connie.

Like a lot of people, Connie did not want to see the trees, fields and wildlife she had grown to love since childhood dramatically altered by a future owner. Similar feelings of Harold and Lucille Hutton resulted in AOK's becoming the owner of the 5,000-acre Hutton Niobrara Ranch Wildlife Sanctuary along the Niobrara River in Nebraska. AOK was the only organization that would make a pledge to the Huttons that their beloved ranch would not be sold, developed or otherwise changed in ways they would find unacceptable.

As Connie and Ron discussed plans to develop a sanctuary program, Margy Stewart, now chair of AOK's Board of Trustees, and I had independently communicated to Ron our interest in leaving our properties to AOK for permanent management upon the deaths of ourselves and our spouses. Margy and I did not know each other as we sat down next to one another at an AOK board of trustees meeting in the summer of 2016. Prior to the meeting Ron had been recruiting Margy and myself as AOK trustees.

After listening to the board discuss the potential for land

acquisitions, Margy and I almost instantly agreed that AOK had to think big, which included a program to raise funds for a sanctuary endowment fund. Connie Achterberg had been telling Ron the same thing, and Connie was backing up her idea with her pocketbook.

Margy was elected to the AOK Board of Trustees and in January 2017 she became board chair. I was subsequently asked to chair AOK's Sanctuary Committee and was elected to the board in June 2017. At the first Sanctuary Committee meeting, it was decided to host two open houses, one at Connie Achterberg's Lincoln County Farm and one at the farm my wife, Carolyn, and I own near the western edge of Morris County.

Several goals were expressed as the Sanctuary Committee planned the two open houses. Among the goals were to demonstrate that wildlife-friendly farms would be people friendly, to make landowners aware of AOK's existing sanctuaries and perhaps to stir interest in creation of future sanctuaries, making non-property owners aware of the effort in the hope they would donate money to assure management of existing and future sanctuaries in perpetuity, and demonstrating sound wildlife-friendly management. My wife, Carolyn (Kendall), grew up on part of our Morris County farm, and after we started dating in 1964, I quickly grew attached to land owned by her parents and her oldest brother. I have always had a soft spot for trees and as a child cried when my father pulled out some fruit trees that had been planted along the edge of one of our fields. We didn't have much in the way of special trees on our farm four miles north of Kanopolis, mostly unspectacular Osage orange, Siberian elm and hackberry. One of my earliest memories is of our family planting a shelterbelt, which as it grew attracted pheasants, quail and eventually such rarities as migrating Long-eared Owls. I learned to appreciate the value of trees for shade and cover as I roamed the nearby countryside with the family's English shepherd. I was entranced by the towering Bur Oaks I found along Clarks Creek. While dwarfed by redwoods we've seen in California, or an immense Cecropia we visited along the Amazon in Peru, they create a dramatic setting for a small stream on the western edge of the Flint Hills. Over time I became intimately involved with the massive oaks and other trees. On one occasion the involvement was more intimate than comfortable. Based on the growth rings of a windfall that came crashing down while a friend and I were sitting under it, some of the oaks on our property date back to the 1860s. Our suspicion is they sprouted shortly after trees in the area were clear-cut to support settlers moving west. They weren't big enough to be used as railroad ties as the Rock Island Railroad cut through

the area in the mid-1880s. Latimer, which is located 10 miles northeast of Herington, was a railroad stop where the trains took on wood or coal and water as they traveled back and forth.

Among the settlers who benefitted from the cutting of the trees originally on Clarks Creek were Carolyn's great-great grandfathers on her father's side. One great-great grandfather came from Kentucky in 1857 and got a job as a captain of a wagon train on the Santa Fe Trail. He spent the winters of 1858 and 1859 in the Stephen Atkinson Cabin. That cabin, which was on property adjacent to one of our two parcels (located two miles apart), is now preserved as a historical display in Council Grove. The other great-great grandfather brought his family to the area in 1867, after temporary residencies near Lawrence and then Skiddy, Kansas.

A lot has changed on our land since Carolyn's great-great grandfathers received some of our land as part of grants from Presidents Buchanan and Lincoln. Beaver, extirpated from the area in the early 1800s, now have dams along Clarks Creek. They sometimes cause crop damage and have killed large oaks, but they also benefit other wildlife by raising water levels. When I met Carolyn in 1964, deer (and ticks) were a rarity on our land. Turkeys hadn't been seen for decades before being reintroduced to the area in the early 1980s. Now they are everywhere. Bobcats roam the fields and wooded areas. Coyotes, no surprise, are abundant. More surprising has been a sighting of a grey fox. Bobwhite Quail, scarce just a few years ago because of drought and unknown factors that puzzled biologists, are thriving in and around our CRP and quail buffer strips. Recently a Pileated Woodpecker has become a semi-regular. Great Blue Herons have a heronry in a huge sycamore. None of those creatures could have survived or returned without wildlife-friendly habitat.

Over the past few years Carolyn and I began development of a nature trail on one of our two parcels. To some extent one doesn't appreciate the beauty of the woods until it is made more accessible through a trail. Interestingly, wildlife, particularly white-tailed deer and turkeys, also like to use the trail we have developed. What was obvious during the open house on our property is that people also enjoy easy access to natural areas. Nearly all of the thirty-three visitors to the open house at our farm walked a portion of our nature trail. As Margy Stewart notes: "Many families have few places to go where wildflowers and other native plants, birds and other wildlife can be seen and enjoyed. We plan to have a sanctuary system that extends across the state of Kansas."





Massive Bur Oak on Haden property. Photo by Ron Klataske

As Ron Klataske has said, “AOK is willing to forge agreements with the landowners to assure that any property donated or bequeathed is managed in accordance with their wishes. Over the long term, we would like to develop a system of sanctuaries that would accommodate diverse wildlife and also be available to the public for appropriate activities and available to universities and other entities for research on agriculture, ecology and habitat management. The Massachusetts Audubon Society, founded in 1896, accepted its first property in 1916 and now has a statewide network of fifty-six designated wildlife sanctuaries, additional protected lands and nature centers.”

Members of AOK’s Sanctuary Committee hope we are on our way to a vibrant sanctuary system. About thirty people attended each of the open houses held in September and October. Visitors had the opportunity to view pollinator plots, CRP plantings and Bullfoot Creek on the Achterberg property. On our property visitors could view CRP plantings, native prairie, a pasture with a good mix of grass and forbs, and a below-pond watering system designed to keep cattle and silt out of a two-acre pond. The aforementioned nature trail was the primary attraction on our property, while the pollinator plot sparked

the most interest at Connie Achterberg’s farm. Presentations on the local geology of the two sites by Rex Buchanan, director emeritus of the Kansas Geological Survey, also held visitors’ interest. Meals at both field days were donated by Feyh Farm Seed, Alma; Sharp Bros. Seed, Healy; and Star Seed, Osborne.

Since AOK’s sanctuary initiative was announced with a news release on August 25, another individual has come forward to advise AOK of his intention to develop an agreement with AOK for donation of his land.

A second individual has indicated he now sees AOK as a viable future option for his land. A lot of work and fundraising remains before AOK’s Sanctuary Program rivals that of the Massachusetts Audubon Society, but we hope that thinking big will have its rewards, and that in the future, wildlife- and people-friendly farms managed in perpetuity by Audubon of Kansas will be sprinkled throughout the Kansas landscape.

YOU ARE INVITED TO

# Experience the Night Sky, Wildlife, and a Wonderful Natural Setting

RON KLATASKE

Photo by Scott Bean

Audubon of Kansas received the following thank you and testimonial from four Kansas artists who enjoyed a visit to the Hutton Niobrara Ranch Wildlife Sanctuary in June of 2017.

*"The Kansas artists' recent trip to Hutton Niobrara Sanctuary could not have been better. Four of us made the journey to north central Nebraska to immerse ourselves in much that the property has to offer.*

*We were able to spend a couple of nights making images of the Milky Way. And those of us with experience photographing the night sky were in awe of the opportunities that the ranch's dark sky location provided. Some very nice images were created.*

*We spent many an hour wandering the property making images of various landscapes, intimate landscapes and the flora, insects, birds and fauna that revealed themselves to us. All agreed, it is a truly wonderful property and we were honored to be able to experience many of its features.*

*As I stood on the bank of the Niobrara River on our last night there, waiting for sunset to paint the sky and river in warm red hues, I was lucky enough to observe a large beaver working the property side bank near our position for over 30 minutes. And Matthew, the painter among us, was able to make a stunning video of his close encounter with that same beaver.*

*Which brings me to say thank you. Thank you for the lifetime of work that you have invested to save, protect and manage properties such as this. Without the commitment, dedication and foresight of individuals like yourself, we would never have been able to experience such a diverse and wonderful natural setting. We all owe you and Audubon of Kansas a debt of gratitude for your collective service to nature."*

*--Wayne Rhodus*

*P.S. We very much hope to return during other seasons, particularly in the fall, to capture more of what the sanctuary has to offer.*



Photo of Scott Bean, Matthew Richter, Wayne Rhodus and Eldon Clark. Photo by Wayne Rhodus





Photo by Eldon Clark

It is a delight to wake up to the song of Western Meadowlarks. It inspires me to think of the many rural school children that loved that sound and the beauty of these birds at a time when so many families lived on farms and ranches. Throughout the expanses of native grasslands, the patchwork of hay meadows and pastures, and even country schoolyards, the birds' clear, cheery song was present almost everywhere in the prairie states.

Thus, when state birds began to be selected in 1927, it was only natural that the Western Meadowlark was chosen by Kansas, Nebraska, North Dakota, Wyoming, Montana and Oregon.

In the spring and summer, when dueling meadowlarks lay musical claim over the meadows and pastures surrounding the Hutton Guesthouse, I prefer to sleep with the windows open. Their songs can be heard from dawn to dusk. Sometimes, too, on spring mornings, the sound of Sharp-tailed Grouse courtship rituals can be heard from the front porch. Their lek is less than a half-mile away on the hilltop in the pasture just across the road.

Although they are seldom seen, a pair of Long-billed Curlews has made the Hutton Ranch their home every summer since the sanctuary was established. In 2012, a pair of Sandhill Cranes first nested in the wetland and wet meadow habitat in the bottomland along the Niobrara River. We do all we can to help them succeed. Access to that area is restricted when they are present to diminish human disturbance. Every year, Bobolinks and Virginia Rails utilize the same habitats as the cranes. Upland Sandpipers, Western Meadowlarks, Grasshopper Sparrows and Ovenbirds provide a hint of the diversity of birds that nest on the property.

### **How Audubon of Kansas became the stewards of the Niobrara Sanctuary, and how we achieve our stewardship**

Audubon of Kansas manages the **Hutton Niobrara Ranch**

**Wildlife Sanctuary** in a dynamic way designed to optimize habitat for grassland birds and other wildlife. Cattle grazing is part of the overall system, but the modest stocking rate and rotation timing is designed to maintain sufficient residual cover each year for the following year's nesting season. Grazing is used to help curtail the ongoing pressure of non-native, cool-season grasses, including Smooth Brome and Kentucky bluegrass, from invading and overwhelming native, warm-season grasses and forbs.

Prescribed burning is also an important management tool; AOK has used it since 2011 as part of our quest to control cedar invasion in grasslands. Cedar cutting, primarily with skid-loaders with blades or mulchers on the front, has required a monumental investment to restore thousands of acres of grasslands and two hundred acres of deciduous woodlands. Meanwhile, fields that used to be cultivated with marginal productivity have been planted to native grasses and wildflowers, with nearly fifty acres of specific-pollinator habitat planned. Another old field is serving as the site for the re-established prairie dog colony.

Historically, this rural landscape was dramatically altered with the advent of homesteading and early European settlement. Audubon of Kansas has not sought to erase all evidence of the homesteading, farming, and pastoral traditions of this place; after all, the donors of the Hutton Ranch, Harold and Lucille Hutton, were part of that history. They cared deeply about nature and the unique place they had inherited and expanded with additional acquisitions. Relics ranging from lilac bushes to root cellars are scattered throughout the property. They reflect the location of several farmsteads, and the families who tried but failed to establish a livelihood. AOK recently restored the physical integrity of Harold Hutton's childhood home in an oak grove, located in a now-secluded spring-fed valley. That home and site provides a sense of place where one can reflect on the Hutton-era legacy. Visitors enjoy it as a day shelter and a peaceful place to appreciate a very special natural setting.



Photo by Eldon Clark

Harold and Lucille's outreach to Audubon of Kansas was based on a relationship established starting in 1978 when I worked in partnership with landowners along the Niobrara River to design and win congressional approval for a seventy-six mile stretch of the river as a National Scenic River. Congressional approval came in May 1991. I was employed by National Audubon until 1998 and then became Executive Director of Audubon of Kansas, Inc. an independent organization with board leadership extending throughout the central Great Plains.

The Huttons' 5,000-acre property was gifted in 2001 to Audubon of Kansas to establish the sanctuary that would preserve Harold's childhood home and the natural surroundings he had grown up with, and had grown to love. AOK was the only entity that would agree to embrace Harold's vision for the property, and promise to maintain it in perpetuity and to never sell any portion of the ranch.

For AOK's first sanctuary, the Board of Trustees set the bar high—and intends to build on this standard as we develop an “archipelago of sanctuaries.”

AOK substantially improved the house Harold and Lucille built and lived in during the last three decades of their lives, engaging in preventative maintenance and repairing damage from frozen pipes in an exterior wall in 2010. In 2005 Audubon of Kansas purchased a nearby 160-acre property referred to by the previous owner as the “Lazy Easy Ranch.” The Lazy Easy house makes it possible for additional guests, families and groups to enjoy the sanctuary experience.

### **How you can experience the Niobrara Sanctuary and the unique ambience of the prairies, woodlands, wetlands and river**

With the opening of Harold and Lucille's home as the Hutton Guesthouse and the acquisition of the Lazy Easy Ranch, two tremendous lodging opportunities are provided for guests at the sanctuary. The Hutton Guesthouse is a modern two-story home with five bedrooms and three bathrooms, kitchen, dining and living rooms. The Lazy Easy Ranch Guesthouse has four bedrooms, two bathrooms, kitchen, dining and living room, all on one story. The combined facilities have

accommodated fourteen enthusiastic members of the Topeka Audubon Society for one of their annual birding adventures, couples and families seeking a retreat, artists and photographers. As the opening letter attests, the facilities and opportunities available on the sanctuary often leave visitors with a desire to return, and the recognition that there is much more to experience in all seasons of the year. This letter, written by one of four “Kansas artists” who recently spent several days in June 2017 exploring the property, testifies to their enthusiastic endorsement of the sanctuary and our ongoing conservation efforts.

Visitation to the sanctuary is limited to groups or individuals who have made reservations for one of the guesthouses or been granted permission to enjoy the sanctuary without lodging. Local zoning regulations do not provide for “public access,” and our foremost objective is to provide an exceptional sanctuary for wildlife. Donations from guests and others make it possible for AOK to provide the range of opportunities for appreciation of the natural world within the sanctuary. Persons interested in staying at one of the guesthouses or visiting the sanctuary are encouraged to contact the AOK office. The email address is [aok@audubonofkansas.org](mailto:aok@audubonofkansas.org), office phone is 785-5374-4385 and mailing address is 210 Southwind Place, Manhattan KS 66503.



House Wren near the porch at the Lazy Easy Guesthouse. Photo by Wayne Rhodus





# The 2018 Federal Farm Bill: The Changing Face of American Agriculture

JOYCE WOLF

Dairy Farm by Scott Hovind

As a child, I grew up in one of the many suburbs of Cincinnati, Ohio, and had the privilege of spending lots of time on what today would be considered a “diversified” farm. That experience has made me think a lot about how farming has changed over the years. Ralph, the owner of the farm my family visited frequently, had a small, mixed flock of chickens, geese and turkeys, along with a small herd of dairy cows and enough pasture for the cows to graze throughout the seasons, along with a bit of “bottom” land to grow row crops. I was thrilled to be able to investigate a small creek, explore the gigantic stacks of hay bales in the enormous barn, and help by gathering eggs in the hen house—all with little or no supervision by adults who kept busy talking, fixing meals, hunting rabbits, or even doing the mundane work of milking the cows toward the end of the day.

It’s unfortunate that more kids nowadays do not enjoy such pleasures—unless they live in an area served by organized farm tours and/or farmers’ markets, so that they can make the connection between the food on their plates and how it is grown.

Recently, as Jayhawk Audubon Society’s program chair, I asked the other board members about their interest in having a panel discussion of the Farm Bill. The overwhelming response was “absolutely,” because we all eat, and most of us are also keenly interested in the conservation of our natural resources. Having lobbied for Audubon at the statehouse for several years, I was fully aware of how important agriculture is to Kansas, but was nevertheless surprised then to hear that farmers are now referred to as “producers,” which seems ironic when you read Paul Johnson’s article and learn how little of the

produce we eat is grown in the state. Are we not missing an opportunity here?

I also continue to be puzzled about the Farm Bill’s reversible policies toward the Conservation Reserve Program (CRP). These lands were originally qualified for the program because they were defined as “highly erodible;” willing landowners were paid to return cropped fields to grasses. Unfortunately, more recent Farm Bills have revoked some of those policies, allowing millions of acres of grasslands to be plowed again and planted to row crops with its attendant application of fertilizers and pesticides. But as you’ll read John Head’s Farm Bill article, you’ll learn about reasons why we need a new paradigm how often Farm Bills should be considered.

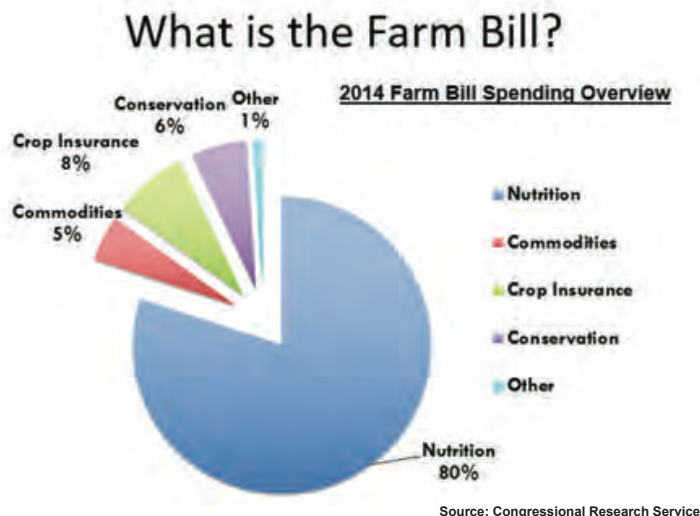


Confined feeding operation and waste lagoon, courtesy of Kansas Geological Survey, Bill Johnson, photographer.

# The 2018 Farm Bill: I Live in Town, Why Should I Care?

PAUL JOHNSON

The federal Farm Bill really, really matters. In a predominantly agricultural state like Kansas, land use is overwhelmingly directed by the Farm Bill through subsidies for a few, select crops and some conservation programs. Farm Bills are passed by Congress every four to six years with the last Farm Bill coming in 2014. Kansas will now have a front row seat to the Farm Bill debate because Senator Pat Roberts is the chairman of the U. S. Senate Agriculture committee. As citizens, we can only hope there will be a serious and substantive debate on farming, on food and the true impact on our natural resources.



Farm Bills contain much more than just farming programs. In fact, eighty percent of their spending goes for nutrition programs, with food stamps (now called the Supplemental Nutrition Assistance Program—SNAP) being the largest program. Senators Bob Dole and George McGovern put food stamps in the 1977 Farm Bill to keep urban legislators supportive of farm subsidies. According to a November 2015 report from the Kansas Health Institute, one-sixth of households in Kansas are food insecure, meaning there may not be enough food in the household at the end of the month. If Congress were to block grant the SNAP program with a spending cap to the states and force the states to cost-share the program, greater instances of hunger in Kansas would occur—especially for children, because SNAP is the largest child-nutrition program in Kansas. SNAP provides food assistance to 107,873 children and 122,358 adults today in Kansas.

The remaining twenty percent of Farm Bill spending is for farm programs in this order: five percent for commodities, eight percent for crop insurance, six percent for conservation and one percent for all other marketing and research activities performed by the United States Department of Agriculture (USDA). Unfortunately, the actual payments to farmers are not distributed in a way that benefits the average farmer. The largest farms receive the greatest share of all Kansas farm payments. Eighty-seven percent of the commodity- and crop-insurance payments go to the top twenty percent of the 61,773 Kansas farms. This tends to drive consolidation of large farms and disadvantages beginning farmers. (These numbers can be verified at <[farm.ewg.org](http://farm.ewg.org)> because farm payments are public records. Of the 61,773 farms in Kansas, only seven percent are operated by farmers under the age thirty-five.)

Comparison of statistics over the past several decades confirms these effects: in 1980, Kansas had 5,600 dairies in the state, but fewer than 400 remain today. Fifty mega-dairies account for two-thirds of the 120,000 dairy cows. Similarly, Kansas had over 13,500 hog farms in 1980 but today there are fewer than 1,400. Ninety-five percent of all pork sales come from 311 large, confined-feed-ing hog operations. The largest ten percent of farms in Kansas account for seventy-five percent of all farm sales. Eighty-six rural counties of the 105 counties in Kansas are now designated as “rural opportunity zones” because they have lost so much population in the last few decades. Since 2010, out of the 320 cities that had a grocery store, eighty-five have now lost their only grocery store.

In essence, Farm Bills subsidize five crops: corn, soybeans, wheat, cotton and rice. The USDA’s recommended Food Plate is supposed to be fifty percent fruits & vegetables, thirty percent grains (preferably fifty percent whole grains), twenty percent protein (meat to beans) and a serving of dairy on the side. The Farm Bill “agricultural subsidy plate” is a whole other matter. Feed grains (for meat and dairy, not human consumption) account for sixty-three percent of Farm Bill subsidies. Food grains account for only twenty percent. Sugar, starch, oil and alcohol account for fifteen percent, while nuts and legumes get two percent and fruits and vegetables less than



one percent. If the Farm Bill subsidies do not match up well with the USDA Food Plate recommendations, they do correlate more closely with the popular American diet of sugar, salt and fat, which is spreading worldwide, accompanied by an exploding obesity epidemic. Unfortunately, fewer than fifteen percent of all Kansans meet that dietary goal of five produce servings a day, while Kansas imports ninety-five percent of all the produce consumed in the state. Kansans spend over \$770 million yearly on fruits and vegetables but less than \$40 million is grown in Kansas.

The mantra is that the world's population will hit 10 billion by 2050, so food production will have to be doubled. Dr. Rhonda Janke's research provides a suggestion for hope. She has shown that Kansas could grow 100 percent of our primary fruit and vegetables on less than 100,000 acres; however, today there are fewer than 10,000 acres in produce. Kansas has approximately twenty-one million acres in cropland of which three million acres are under irrigation, nine million acres in wheat, five million in corn and four million in soybeans. There are an additional sixteen million acres in pasture. From a humanitarian perspective, exports of feed grains from the United States primarily go to the developed nations for their meat consumption, not to combat hunger in the poorest nations. So, the question might be asked: "What are we going to feed the world and how could the world feed itself?"

Consolidation and corporate control can hardly be overstated in food production in the United States. Four corporate firms (Cargill, Tyson, JBS, National Beef) now control eighty-two percent of the beef market. These companies have divided up the market among themselves, so many feedlots are getting only one packer bid. Over seventy percent of live cattle are either packer owned or forward-contracted to a given packer. JBS is a Brazilian firm and now the largest meat company in the world. JBS just paid a \$3.2 billion fine for political corruption.

In the pork world, there is no free market left since ninety-eight percent of hogs are now packer owned or forward-contracted to a given packer such as Smithfield Foods, Tyson, JBS or Cargill. Smithfield Foods has recently been bought for \$5 billion by a Chinese firm (WH Group) which has been given significant investments from the Chinese government. China now owns one of every four hogs in the U.S.

The poster-food industry for corporate control is the chicken industry dominated by companies such as Tyson, JBS, Perdue and Sanderson. These companies have fully integrated their poultry operations by owning the animal

Kansans  
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from the genetics, through the hatchery, through the chicken house, through the processing plant, to the retail meat counter. The chicken growers that contract with Tyson must raise the \$200,000 to construct a chicken house and are responsible for disposing of tons of chicken litter, paying the utility bill to keep the birds alive, and getting rid of any dead birds. Today, the majority of chicken growers live in poverty without some outside income. (*Consolidation, Globalization, and the American Family Farm* – August 2017 Policy Brief – Organization for Competitive Markets [www.competitivemarkets.com](http://www.competitivemarkets.com))

Recall that only six percent of Farm Bill spending goes to conservation initiatives. Nevertheless, conservation programs have been very important in Kansas. By far the largest is the Conservation Reserve Program (CRP) that was authorized in the 1985 Farm Bill to provide



Cattle feedlot and waste water lagoon, courtesy of Kansas Geological Survey, Bill Johnson, photographer.

environmental and economic benefits through voluntary partnerships. With the use of ten-year contracts, CRP restores wetlands, provides natural habitat for wildlife, protects streams and removes carbon dioxide from the air. Because of federal budget cuts, CRP has been downsized nationally from thirty-five million acres to 23.5 million acres, with only 7.3 million of this acreage now in continuous CRP sign up for conservation practices. The Conservation Reserve Enhancement Program (CREP) accounts for 1.1 million acres through 47 agreements in 33 states. Kansas has just over two million CRP acres.

The Conservation Stewardship Program (CSP), which was expanded in the 2014 Farm Bill, supports conservation measures on working farms. In 2016, Kansas had a budget of \$5.1 million for this program, which supported 478,000 CSP acres through 243 contracts. Because of this limited funding, just fifty-six percent of the qualified applicants were funded. The other key environmental program is the Environmental Quality Incentives Program (EQIP) that funds not only on-farm conservation programs but also environmental quality waste controls for large Confined Animal Feeding Operations (CAFO). In 2016, Kansas had 902 EQIP contracts totaling \$23.4 million. But only thirty-seven percent of eligible applicants were accepted. With more generous funding for these programs, Farm Bills could do much, much more for conservation and restoration of the natural ecosystems. The need is there, as is the interest on the part of Kansas farmers.

In the light of these facts, what should a sound Farm Bill look like? There could be significant improvements to the 2018 Farm Bill. Congress should put strict subsidy limits for commodity payments and crop insurance to the largest farms, phased in over five years. Crop insurance subsidies should require conservation practices and be expanded to cover more specialty crops and diversified farming operations. The funding saved by capping commodity payments and crop insurance could be used

to fully fund the best environmental CRP practices and expand funding to all eligible applicants for CSP. Instead of relying on specific crop subsidies and crop insurance payments, increased conservation payments for many more farmers could give them an income floor to diversify their operations into more specialty crops, management-intensive grazing and greater use of cover crops to improve habitat and preserve soil.

As the average American farmer passes sixty years of age, there need to be focused, beginning-farmer programs to transition land to the next generation. Existing and new anti-trust law, such as banning packer ownership of animals, should be enacted and enforced to bring a freer and fairer market for the farmer and the consumer. Regional and local food markets should be expanded to ensure a safer and more resilient food supply in these times of climate change and natural disasters.

To learn more about better ways to design Farm Bills for the future, consult the National Sustainable Agriculture Coalition (NSAC), which is a coalition of over 100 grassroots organizations nationwide that promotes a healthier, more vibrant food and farming system. NSAC was key in developing the Conservation Stewardship Program for working farms. NSAC's priorities include sustainable/organic research, beginning-farmer programs, expanding conservation programs, enforcing/expanding anti-trust laws, supporting regional food systems and advocating for farmworker fairness and safety-net food programs. NSAC has assisted with the introduction of the "Local Farms Act" in Congress. NSAC distributes weekly email reports. The website for NSAC is: <sustainableagriculture.net>.

Paul Johnson, Lobbyist for the Kansas Rural Center and An Original Sponsor of the Rolling Prairie Farmers Alliance, a CSA in Lawrence, KS





# Envisioning and Enacting **a 50-Year Farm Bill**

JOHN W. HEAD

Photo by John W. Head

How about taking a longer-term view toward farm policy and ecological sustainability? The usual Farm Bill cycle runs only half a decade: roughly every five years a new debate begins, new proposals and priorities compete, and a new Farm Bill emerges. Some matters, in my view, are important enough to require a much longer time-horizon than this.

The January 4, 2009, edition of *The New York Times* features a column written by Wes Jackson and Wendell Berry titled “A 50-Year Farm Bill.” Drawing attention first to the catastrophic soil erosion that large rains caused in Iowa in the summer of 2008, Jackson and Berry explain in that column that it is agriculture itself, not the rains or other natural causes, that must be blamed for the long-term degradation of the world’s soil. Jackson and Berry point particularly to “industrial procedures and technologies alien to . . . nature,” and then they offer this elaboration:

*Agriculture has too often involved an insupportable abuse and waste of soil, ever since the first farmers took away the soil-saving cover and roots of perennial plants. Civilizations have destroyed themselves by destroying their farmland. This irremediable loss, never enough noticed, has been made worse by the huge monocultures and continuous soil-exposure of the agriculture we now practice.*

*To the problem of soil loss, the industrialization of agriculture has added pollution by toxic chemicals, now universally present in our farmlands and streams. Some of this toxicity is associated with the widely acclaimed method of minimum tillage. We should not poison our soils to save them.*

*Industrial agricultural has made our food supply entirely dependent on fossil fuels and, by substituting technological “solutions” for human work and care, has virtually destroyed the cultures of husbandry (imperfect as they may have been) once indigenous to family farms and farming neighborhoods.*

*Clearly, our present ways of agriculture are not sustainable, and so our food supply is not sustainable. We must restore ecological health to our agricultural landscapes, as well as economic and cultural stability to our rural communities.<sup>1</sup>*

Having identified the key problems of agriculture—soil loss through the use of monocultures and soil exposure, the toxicity of agricultural chemicals, a dependency on fossil fuels, and over-reliance on technological “solutions”—Jackson and Berry then assert that a principal way of addressing those problems is through concentrating on perennials:

*Any restorations will require, above all else, a substantial increase in the acreages of perennial plants. The most immediately practicable way of doing this is to go back to crop rotations that include hay, pasture and grazing animals.*

*But a more radical response is necessary if we are to keep eating and preserve our land at the same time. In fact, research in Canada, Australia, China and the United States over the last thirty years suggests that perennialization of the major grain crops like wheat, rice, sorghum and sunflowers can be developed in the foreseeable future. By increasing the use of mixtures of grain-bearing perennials, we can better protect the soil and substantially reduce greenhouse gases, fossil-fuel use and toxic pollution.*

*Carbon sequestration would increase, and the husbandry of water and soil nutrients would become much more efficient. And with an increase in the use of perennial plants and grazing animals would come more employment opportunities in agriculture—provided, of course, that farmers would be paid justly for their work and their goods.<sup>2</sup>*

Jackson and Berry conclude their essay by urging legislative action that reflects a national agricultural policy to bring radical change to food production and rural life:

*Thoughtful farmers and consumers everywhere are already making many necessary changes in the production and marketing of food. But we also need a national agricultural policy that is based upon ecological principles. We need a 50-year farm bill that addresses forthrightly the problems of soil loss and degradation, toxic pollution, fossil-fuel dependency and the destruction of rural communities.<sup>3</sup>*

<sup>1</sup> Wes Jackson and Wendell Berry, “A 50-Year Farm Bill,” *The New York Times*, Jan. 4, 2009

<sup>2</sup> Ibid.



A few months following the publication of the *Times* column, the research institute that Wes Jackson founded and presided over for many years—The Land Institute—prepared a brochure elaborating on the idea of a 50-Year Farm Bill that would set the United States on a course toward making a systemic change in agriculture.

I agree with the theme of these efforts—we definitely need a Farm Bill that will span a matter of decades, not just years—and in a book published in December 2016 (*International Law and Agroecological Husbandry*) I offered an updated and enlarged description of the proposals appearing in the 2009 column by Wes Jackson and Wendell Berry and in the “50-Year Farm Bill” brochure as prepared by The Land Institute. In the following paragraphs I summarize some highlights from that portion of my book.<sup>4</sup>

### **Aims of a 50-Year Farm Bill**

The overall aim of a 50-year Farm Bill for the United States would be to reorient U.S. policy on a cluster of issues. Grain production would be at the center of those issues, for the simple fact that roughly three-quarters of U.S. acreage currently devoted to crops is devoted to grain production, and roughly 70 percent of human caloric intake in this country comes from grains. The global figures are similar, and in fact the adoption of a 50-Year Farm Bill for the United States could help trigger similar legislative initiatives in other countries.

In addition to the issue of grain production, the cluster of policy issues that a 50-Year Farm Bill would address also includes these:

#### ***Biodiversity and ecosystem health.***

The Millennium Ecosystem Assessment conducted a few years ago under United Nations auspices identifies agriculture as the “largest threat to biodiversity and ecosystem function of any single human activity.”

#### ***Soil degradation and erosion.***

Specifically, soil degradation is an inevitable consequence of the annual-monocultures form of agriculture that has dominated grain production for thousands of years. As I envision it, a new farm policy as set forth in a 50-Year Farm Bill would aim to break that domination and transform grain-and-legume agriculture to a perennial-polycultures model of production. Doing so would reduce erosion, protect soil nutrients, reduce soil toxins, and manage soil nitrogen efficiently.

#### ***Water pollution from agricultural run-off.***

Recent figures show that agriculture is responsible for 70 percent of U.S. water contamination, and 40 percent of

U.S. waters are unfit for swimming and fishing. Moreover, the leaching of nitrogen compounds from the agricultural lands of the Mississippi Basin is responsible for one of the largest dead zones in the world—the area just off the Mississippi delta in the Gulf of Mexico. A 50-Year Farm Bill could begin a reversal of that trend by obviating the agricultural run-off pollution.

#### ***Agricultural-pesticide dangers.***

Pesticides are present in nearly every water and fish-tissue sample from streams and rivers in agricultural areas in the United States. A natural-systems agriculture policy adopted through a 50-Year Farm Bill could drastically reduce pesticide use.

#### ***Fossil-carbon dependence.***

I believe it should be a goal of a 50-Year Farm Bill (and of other legislative and policy initiatives) to cut fossil-fuel dependence to zero. Most of the elimination of agriculture’s current fossil-carbon dependence could be accomplished by phasing out fossil-carbon-based fertilizers and other agricultural chemicals—as would be possible with the nutrient cycling that is central to a natural-systems form of grain production built around perennial polycultures.

#### ***Greenhouse gas emissions (GHG) and global climate change.***

Carbon sequestration should also be a goal of a 50-Year Farm Bill. An even more aggressive goal could be to drastically transform U.S. agriculture’s role in the trajectory of global climate change. A 50-Year Farm Bill could realistically set and achieve this goal by adopting a natural-systems agriculture policy that would reduce GHG emissions not only by: (i) phasing out fossil-carbon-based fertilizers and other agricultural chemicals, (ii) reducing fossil-fuel inputs for mechanized farm operations, but also by (iii) reducing those forms of livestock production that produce the most damaging volumes of methane emissions<sup>5</sup>, and (iv) increasing carbon-sequestration capacity of farmland through the development of deep and complex below-ground root-mass typical of perennials.

#### ***Farm and rural community restoration.***

A different category of goals for a 50-Year Farm Bill would be economic and social in character. As Jackson and Berry pointed out in the last line of their *New York Times* column, “we need a 50-year farm bill that addresses forthrightly the . . . destruction of rural communities” that modern extractive agriculture has brought to the United States in the past several decades—a destruction that I have seen first-hand where I grew up in northeast Missouri.

In short, a 50-Year Farm Bill would aim to reorient U.S.

<sup>3</sup> Ibid.

<sup>4</sup> John W. Head, *International Law and Agroecological Husbandry: Building Legal Foundations for a New Agriculture* (Routledge, 2016).

policy not only on grain production but also on biodiversity, soil health and conservation, water quality, human health, independence from fossil-carbon dependence, climate health, and rural restoration.

### Legal and Financial Initiatives

What provisions could a 50-Year Farm Bill include? I believe it should require numerous legal actions to address the economic, ecological, and social unsustainability of modern extractive agriculture. In a bare-bones, bullet-point list, those actions include:

- Take action through subsidies and other incentives to reduce the high entry costs and other hurdles to small farmers and beginning farmers.
- Strengthen measures to increase the size and diversity of farm populations and rural populations by improving economic and social conditions.
- Provide support for the diversification of crops, partly through an extensive reorientation of agricultural subsidies. Such a reorientation would sharply reduce financial support for the small cluster of currently-favored crops and sharply increase financial support for other crops—particularly the grains and legumes currently emerging (or to emerge) from research into perennial polycultures that lie at the heart of natural-systems agriculture.<sup>6</sup>
- As one part of this subsidization, provide funding to expand dramatically the ongoing scientific research into perennial species of food grains and legumes that can gradually supplant the annual crops that dominate today's agriculture.
- Likewise, provide adequate funding to expand dramatically the ongoing scientific research into food-crop polycultures. Perennial grains have many advantages

over annuals, but ultimately a “mimicking” of the prairie architecture requires the development of *mixtures* of several species in a single field—different mixtures, of course, in different climatic and soil conditions.

- Remove fossil-carbon subsidies.
- Stiffen agriculture-specific anti-pollution protections to reduce the ecological damage caused by agricultural runoff and pesticide use and as part of the overall effort to internalize the negative externalities of modern extractive farming and thereby help facilitate a shift to what I call agroecological husbandry.
- Impose a system of penalties for greenhouse gas emissions from agricultural operations and credits for carbon sequestration.
- Give special legal and regulatory attention to livestock production in order to reduce its contribution to global climate change.
- Adopt as national policy the Precautionary Principle as practiced in Europe and as reflected in numerous international legal instruments, and have this policy reflected in all agriculture-related decisions – including those bearing on the manufacture, testing, and use of agricultural chemicals.

In my view then, we should look beyond a five-year farm bill. Let's envision a 50-Year Farm Bill that puts in place the specific types of requirements, restrictions, and initiatives listed above, in order to bring fundamental change to United States agriculture. Naturally, we won't agree at the outset on all the details, or even on all the goals. However, modern agriculture is unsustainable and needs fundamental reform. We should start the debate immediately on how to accomplish this reform and put agriculture on a sustainable footing.

John Head, currently serving on the Executive Committee of Audubon of Kansas, is the Wagstaff Distinguished Professor of Law at the University of Kansas. The views expressed here are his own and are not to be attributed to the University of Kansas, to the State of Kansas, or to Audubon of Kansas.

<sup>5</sup> Livestock-generated methane is a major contributor to global climate change, partly because methane itself is more than 30 times more potent as a greenhouse gas than carbon dioxide. Therefore, a reversal of the globally increasing demand for meat would bring not only health benefits but also a reduction in greenhouse gas emissions of a potentially dangerous kind. Livestock production has an important role to play in natural-systems agriculture—a point emphasized, in fact, by Wes Jackson and Wendell Berry in their *New York Times* column calling for a 50-Year Farm Bill—but the form and extent of such livestock operations would differ substantially from those that dominate the United States' livestock “industry” of today. The extent (that is, the volume of meat production) would be greatly reduced, reflecting a reduced demand for meat in human diets, and CAFOs (confined animal feedlot operations) would largely disappear because livestock would be integrated into farm operations more generally—as they were for thousands of years until quite recently.

<sup>6</sup> While I will not attempt to enumerate specifically what the contours of that research should be, or the financial and human resources that should be devoted to it, here are two examples of proposals that have been made in this regard. The first example comes from Wes Jackson and some of his colleagues at The Land Institute. It includes hiring and training more researchers to concentrate their efforts on developing perennial polycultures. A second example comes from the Missouri Botanical Garden, which is engaged in a massive global effort to document plant biodiversity on our planet, with the long-term goal of identifying wild, perennial, herbaceous species as promising candidates for pre-breeding and domestication so as to develop perennial foodcrops.



# We Didn't Know We Didn't Have Them

Bill Browning



Photo by Susan Pogany

*Bill Browning is a retired small town doctor and rancher from Madison, Kansas. He reports being irked by the cell phone junkies we've all seen sitting together at a restaurant, both engrossed in their cell phones for fifteen minutes at a time, or worse, one hunched over the phone while the other stares vacantly into space. Reluctant to join that cadre, he was the last to buy a cell phone himself, simply in order to have a way to call for assistance—a need the following story will underline. He treats his trac flip phone solely as a call-out device, and seldom turns it on. He reports having had 700 unused minutes on the phone before this story begins.*

I have apparently lost my cell phone. It might have fallen out of my pickup at a friend's Tuesday evening and I fear his German Shepherds might have chewed it up or eaten it. Being without it has gotten me to thinking about how things were for people out in the country and especially out here on the edge of the Flint Hills before we had cell phones.

The first time I remember getting stuck, I was a boy, my grandfather was driving and we high centered on a rock out in the pasture. It's the closest I know my grandfather ever came to cursing. We walked a mile and a half home. A few years later when I was big enough he sent me out to pry that rock up, break it into pieces with a sledge hammer and throw it in a ditch. I was very careful around my grandfather after that.

While I was finishing up my medical training—1975—my wife and I came out with another couple for a weekend at the ranch and in the afternoon caught a bunch of crawdads in the creek, just to see how they would taste. On

the way out of the pasture I drove into a ditch, causing Jennifer's head to break the windshield, and leaving a swatch of her hair hanging from the crack. Jennifer was very unforgiving about this.

As the radiator was also cracked there was a three mile walk home. And finally the crawdads had spilled and we could not find them all. The Dodge never smelled the same. I cannot recommend crawdads.

Thirty years ago we ran out of gas at the Big Spring. The fuel gauge was broken. That was a full five mile walk home for four of us. A cold December day, my son being only eleven at the time.

It must have been twenty-five years ago that someone pulled up in our drive and began to pound on our door at two AM—a scary time for that. I phoned my sister's house before going to the door so as to have a line open in case there was trouble. My brother in-law answered and said to send the door-pounders the half mile down to their house, that they knew all about it. It seemed a drug dealer had been driving around out in the hills and possibly had imbibed too much of his product and had freaked out and fled into the pastures, finally driving his car off an embankment. After walking at least four miles he had found my sister and brother-in-law's, and they had let him use their land line to call for his friends who, lost, were at my door. In spite of our reassurances to him, the perpetrator was fretting that the red lights of distant radio towers to the west were really fast approaching squad cars.

We heard there was quite a search for the car and that the dealer and his buddies even rented an airplane to look for it. This was late summer and I thought I had a good chance to find it during my fall quail hunting, hoping thereby to come into what must have been a trunk full of drug money. But it was coyote hunters who finally came across it in late winter.

A few years later the purported drug dealer was killed in a shootout with the KBI over east of Madison in a rancher's driveway.

It's probably been twenty years ago, a summer afternoon, that I was out in the pasture afoot to get the horses in when I heard someone yelling in our yard. A man and a boy, I saw. "Thank god we've found you. You've got to take us to Cassoday." To get to my house they had to pass my sister's. Either nobody was home or they hid. I wish I could have. Cassoday is a 50 mile round trip on some bad gravel.

Back when this situation occurred with some frequency we called these people "walk-ins". Some of them had walked a long ways. West of my sister's house it is more than 12 miles to the next place. These people could be tired, lost, or desperate. Here I had all three. And worse, the guy said I had to take him back to his car (with two flat tires) because he had forgotten to lock it up.

Oh, wow! Some of these walk-ins, when they find you, it's like some exhausted sinking swimmer—they won't let go of you and you know you're their only hope—and you are not happy about it. So I drove them back out to their car—about six miles and way off the road. It was obvious that they had been trespassing on the neighbor's, where they were planning to fish.

On the way back out of the pasture I mentioned hopefully that they might get someone to take them home to El Dorado if I could get them to Madison. "Madison," he said learning where he was. "I know someone in Madison," he let slip. I pounced. Preston Pierce was home and sort of remembered "Jim" and that's where I took them. Sorry, Preston.

The next time I saw Jim and his son was about a year later. I was quail hunting with my Brittany and walked up over the pond dam where they were trespassing and fishing on our place without permission. So this was my reward for giving them my time and transportation. It is only with the benefit of the retrospection of all these years that I can imagine the threatening aspect I must have presented. Here he was fishing out in the middle of nowhere when all of the sudden an angry man pops up

over the pond dam with a 20 gauge shotgun in hand. That was the last time I saw Jim.

Maybe fifteen years ago I ran across an old man (the age I am now) two miles from our home. He was hopelessly stuck. Madison Township was doing a major overhaul on road 370; it had rained a lot and the project had turned into a quagmire. The old guy was in a truck pulling a long trailer. You've seen those trailers that have stalls for horses, kennels for field trial dogs and a living space for humans. There he was in the middle of the road, frames buried in the mud and because I found him, his problem instantly became mine or else I would be a bad person.

Obviously our Ford 8N tractor could not help here and nothing else on our place stood a chance. He climbed in with me and off we went. The neighbors who had the right size tractor were not home and no one else this side of town had the muscle to move that size rig. When we got to town poor Bob Cox was home. With the Township's backhoe and maintainer he could surely take care of it. Sorry, Bob.

Perhaps the episode that would have been most changed by access to a cell phone was in 1981. I was horseback at 5:00 pm repairing water gaps (where the fences intersect draws they are subject to washouts) after a big rain. Loping up a hill, my horse suddenly did a front somersault—a trick we had never practiced. Although I managed to fling myself out of the stirrups and saddle it was only to find myself on my back watching his accelerating rump smash down on my lower torso. He was unhurt. I, however, had too many broken bones to crawl away. A cold rain fell much of the time during the next six hours as I lay there. As my core temperature began to slide into the early stages of hypothermia, finally down to the 95 degree range, I began to have the violent shivering that is typical of that state. You probably have never witnessed such a shaking but with broken bones it becomes a sufferer's indelible memory. Oh, for a portable communication device.

*Bill's wife, Jennifer, realized that he was not getting back home from fixing water gaps on time and it was getting dark, so she started calling people for help. The local bars cleared out with people coming to look for him. "One of the celebrants stopped to drain off a little beer—when he stepped out of his pickup he could hear me yelling ..... 'Larry!'*

*'Bill!'*

*'Don't drive over me!'*

*Bill reports that he had broken some ribs, suffered a shattered pelvis and a broken lateral process from a lumbar vertebra. That was a time when a cell phone would really have proved its utility.*





# PARSONS: The Purple Martin Capital of Kansas

ANDREW  
BURNETT

Each spring the skies over Parsons, Kansas, are highlighted by the appearance of Purple Martins. Martins, known for their aerial acrobatics as well as their melodious burblings, have an unrivaled devotion to their home. Their devotion is so ingrained that near the first of March, they fly virtually non-stop from the Brazilian rainforest, where they winter, until they reach Parsons, all in a mere two weeks. Sometimes, they cross the whole of the Gulf of Mexico in a single day in their attempt to get home to begin the mating process.

At the end of that two-week, 3,500-mile journey of nearly non-stop flight, the Martin seeks out the exact nesting site where it raised its young the previous season. Much like the swallows of Capistrano, the Purple Martins of Parsons return to the same area they left the previous summer. But these nesting sites are not those of typical wild birds. The Martin has adapted its behavior so that it has become nearly fully reliant on humans to provide housing. East of the Rockies, it is rare to find Martins in a nesting site that is not man-made; their survival is thus totally dependent upon human action.

## **Purple Martin Capital of Kansas**

The official record of Purple Martin houses on public property in Parsons began as early as 1969, when the city bought two Martin houses “to be placed in the city.” Through the late ‘70s and ‘80s, the Southeast Kansas Audubon Society (SEK Audubon), led by project coordinator Bill Brewer, spearheaded the significant expansion of “public” Martin housing. In 1989, inspired by his love of Martins and motivated by other American towns’ achieving similar designations, Brewer pushed for Parsons to become the official “Purple Martin Capital of Kansas.” Quoted in the *Parsons Sun* in 1994, Brewer said, “I thought, heckfire, if they can get it done, we can get it done in Kansas ... it just happened that everything worked right, and it kept mushrooming from there.”

In March of 1990 the Kansas Legislature voted 120-0 to name Parsons officially the “Purple Martin Capital of Kansas.” This effort was led by Senator Mike Johnston and Representative Bill Brady, who supported the measure in Topeka, while wearing a purple jacket borrowed from a KSU fan. Then Governor Mike Hayden came to Parsons



Intimate views of Martin home life: eggs and nestlings at two stages of development. Photos by Andrew Burnett

## “...That the Kansas Legislature proclaims Parsons, Kansas, as the Purple Martin Capital of Kansas”

(Senate Concurrent Resolution No. 1636, March 16, 1990)

to dedicate and raise the city’s seventeenth public Martin house and to read the following proclamation: “Be it resolved by the Senate of the State of Kansas, the House of Representatives concurring therein: That the Kansas Legislature proclaims Parsons, Kansas, as the Purple Martin Capital of Kansas” (Senate Concurrent Resolution No. 1636, March 16, 1990).

The Martin population thrived for a decade, following this state declaration, with the Martins always delighting many residents and visitors. The bird houses continued to be put up and cared for by members of SEK Audubon, reaching a peak in 1999 with seventy-seven houses and an estimated population of 1,000 adult Purple Martins.

This began to change in May 2000, however, when a tornado struck Parsons. The tornado, while small in relative terms, hit the heart of the public Purple Martin colony. Many of the houses were destroyed or damaged, and tragically, many Martins were killed or disappeared from the colony. In addition, shortly afterwards, the primary driver of the Martin project, Bill Brewer, passed away. These factors combined to cause an overall decline in Parsons’ Purple Martin population.

Moreover, the European Starling and the English House Sparrow, invasive bird species, contributed greatly to the decline of the Martins in Parsons. Introduced by humans to North America in the late nineteenth century, these species have multiplied to the point that they have become a serious problem to all native, cavity-nesting birds. Both preempt potential nesting locations for Martins, and both have been known to raid Martin nests in an effort to steal these nests for their own. They also have the evolutionary advantage of strong pointed bills and an aggres-

sive nature. There is little the Martins and other native birds can do to stop the onslaught. At the time of a formal population survey in May of 2013, the public Purple Martin colony population had fallen to forty pairs—a 90% population loss from the 1999 peak.

### **Advancement in Purple Martin Management**

The survey was a call to action for the SEK Audubon Society. There was a clear risk of losing the Purple Martins. Partnering with the Purple Martin Conservation Association (PMCA), SEK Audubon developed a new set of criteria for housing design and management. The PMCA provided years of experience, science and knowledge on which SEK Audubon could build. The new criteria are:

*Expanded Housing Compartment Size:* The standard six-inch by six-inch compartment, while functional, does not promote Martin wellbeing. Weather and predators both compromise this size very easily. Doubling the size to six-inch by twelve-inch has proven to increase overall house occupancy as well as increased brood size. Expanded compartments also keep nests drier and allow nestlings to stay cooler during heat waves.

*Starling Resistant Entry Hole (SREH):* Starlings are direct competitors for Martin nesting sites. If a Starling wants a nest cavity, the Martin is all but powerless to stop it. SREHs are designed to prevent the larger Starling from entering potential Martin housing by changing the opening size to the house and its position.

*Porch Dividers:* Porch dividers keep male Martins from dominating more than one nesting cavity, allowing for more productive use of housing. Dividers also prevent nestlings from moving from one nest to another. Such



movement potentially can cause the young to die.

*Predator Baffles:* Similar to squirrel baffles, these devices prevent most snakes, squirrels, and raccoons from climbing a pole and raiding a nest.

*Location:* Several Martin houses, over the years, had become unsuitable for Martins, due to the growth of nearby trees. If a tree gets too close to a house, Martins feel unsafe and abandon the location.

*Management:* It is necessary to consistently prevent invasive species from occupying housing; to monitor Martin arrival and not open housing until the Martins arrive; to clean and close housing after Martins have migrated; and to conduct regular nest checks to ensure status of Martins.

### **Repair and Upgrade**

Based upon the new criteria, an assessment of Parsons' Purple Martin colony was made. The assessment showed that approximately \$10,000 was needed to repair, replace, and upgrade all of the forty aluminum Martin houses and poles set up for the current public colony. The fact that Parsons had been designated as the "Purple Martin Capital of Kansas" gave our community a great advantage. While most communities might struggle to identify a Purple Martin, the vast majority of Parsons residents know that Parsons is the Kansas Purple Martin capital.

SEK Audubon then approached Jim Zaleski, the CEO of the Parsons Chamber of Commerce, and the Labette County Tourism Board for help. Jim enthusiastically embraced the project. Labette County Tourism granted the project \$300 as well as assisted with marketing, in an effort to kickstart the program. The campaign quickly raised several thousand dollars from individuals and businesses. Grants were received from the National Audubon Society and Purple Martin Conservation Asso-

ciation. These funds were then leveraged to apply for a grant from the Kansas Department of Wildlife, Parks and Tourism's "Chickadee Checkoff" program. Taxpayers can voluntarily check off on their Kansas tax forms a contribution for non-game wildlife conservation. We were elated when we received notice that we were awarded the maximum allowable amount of \$5,000. Our project was nearly fully funded! The city of Parsons then chipped in, providing us an unused work and storage space that had been previously allocated for new business development.

Over the course of the fall and winter of 2013, SEK Audubon members steadily worked through the process of rebuilding the Purple Martin colony. Old houses were repaired, new poles installed, houses relocated, new systems installed. Overall about 70 percent of the needed work was completed in time for the March 2014 arrival of the Martins. The Purple Martins enthusiastically adopted the new design. The public colony grew from forty nesting pairs in 2013 to sixty-two in 2014, including one pair becoming established in a colony section that had been abandoned for at least five years.

While the gains were tenuous, it was a wonderful start for the rebirth of the Purple Martin Capital. The remaining 30 percent of the renovation work was completed prior to the 2015 arrival of the Martins. The colony ended up with 280 potential nesting cavities once renovations were completed. In the years since, the Purple Martins have responded wonderfully. Population increases have been recorded each season: 2015 - 120 pairs, 2016 - 184 pairs, 2017 - 214 pairs. If trends continue, the public colony should near its peak capacity during the 2019 season. Although Parsons does not have nearly the 1,000 cavities that it had at its peak owing to the impact of the new design features in the houses, the total number of young Martins produced each season since 2000 should bring us up to the same number as we had during the peak. The Parsons Purple Martin colony will also be easier to maintain and more resistant to radical shifts in population.

Long term, our plan is to create a billboard-style learning station for the public to visit and learn about Purple Martins and their biology. We also plan to engage local schools with age-appropriate educational and hands-on learning opportunities. Our hope is to continue to build on the Purple Martin legacy in Parsons as well as to engage the next generation in the wonders of avian ecology.

Andrew Burnett, Vice President, Southeast Kansas Audubon Society



Photo by Andrew Burnett



## Konza Prairie, Mid-October, Mid-Day

ELIZABETH SCHULTZ

The beginning of the day was tumultuous. We had started early, driving from Lawrence to the Konza Prairie, beneath a glowering sky. For forty minutes, our progress on I-70 was stalled midway as highway managers had determined to keep traffic coming to the K-State game down to a slow crawl. Fearful that I would miss my appointment with Dr. Eva Horne, Assistant Director of the Konza Prairie Biological Station (KPBS), as soon as two lanes were opened again, I drove the last thirty miles like a wild animal let out of the chute. My friends, Muriel Cohan and Patrick Suzeau, members of the University of Kansas Dance Faculty, who were accompanying me, could not have anticipated in advance such ferocious behavior. Pulling away from the Administrative Offices of the KPBS, as we arrived a half an hour late, was a red Subaru. It was Dr. Horne, who had agreed to introduce us to the Konza bison, no longer called “buffalo” and scientifically known as the American Plains Bison (*Bison bison bison*).

From childhood, I had heard, “Oh, give me a home where the buffalo roam . . . And the skies are not cloudy all day.”

But on this mid-October day, as Dr. Horne drove us up a rugged two-track to see where the bison were not entirely free to roam, the skies were definitely cloudy. We came to the first in a series of gates which keep the Konza bison herd in segregated groups, clouds swelling and rumbling over the prairie. I looked out the car window to see this expansive sea of grass rolling toward a horizon and to see distant rain beginning to dissolve this horizon. I realized again that the prairie, like the original seabed it once was, though expansive, is not flat. It undulates, rising up into low mesas, settling down into open stretches. Shadows and trees are caught in the troughs of its grassy waves. From the beginning of our journey, Dr. Horne made it clear to us that bison are a critical part of the KPBS’s study of a healthy prairie ecosystem. The present herd—now numbering 300 with ninety-seven of these calves—are the descendants of thirty bison, donated by the Fort Riley Military Reservation in 1987. The subjects of diverse and ongoing research projects, they now have 2400 acres of fenced tallgrass prairie for roaming, grazing, mating, frolicking, wallowing, and, inevitably, ruminating.





Bison in Snow. Photo by Chad Hedinger

The politicians, entrepreneurs, land developers, railroad men, hunters, farmers, entertainers such as “Buffalo” Bill Cody, all of whom were engaged in the intentional extermination of bison from North American prairies, were oblivious to the interrelationships among living beings on the prairie, with the health of one depending on the health of all. They were oblivious from the early years of the nineteenth century through 1885, by which time they had reduced the fifty million or more bison inhabiting the continent to eighty-three, thereby forcing Native People, whose communities needed bison for bodily and cultural sustenance, onto reservations. In 1851, Herman Melville, writing *Moby-Dick* and concerned about the extinction of whales in the continent’s oceans, anxiously compared whales to bison; “Consider the humped herds of whales with the humped herds of buffalo, which, not forty years ago, overspread by tens of thousands the prairies of Illinois and Missouri, and shook their iron manes and scowled with their thunder-clotted brows upon the sites of populous river-capitals, where now the polite broker sells you land at a dollar an inch; in such a comparison an

irresistible argument would seem furnished, to show that the hunted whale cannot now escape speedy extinction.”

Part of my education in becoming a Kansan was learning the grasses—Big Bluestem, Little Bluestem, Indian Grass, Switchgrass—and coming to appreciate the astonishing diversity of grasses and flowers—in all colors, with multiple shapes—in a healthy prairie. But I’d not associated trees with a prairie until Dr. Horne pointed to a stand of trees darkening an area down below us. “Red cedars,” she said. “Without bison, the entire Konza would be cedar woods.” The bison’s rubbing against the cedars not only eliminates these trees, but their presence also limits invasive shrubs, such as lavender dogwood. The bison’s day-in, day-out munching of grasses and their excrement keep the prairie flourishing. Like fire on the prairie, their grazing increases both the variety of plant species and the abundance of birds, Upland Sandpipers and Grass-hopper Sparrows in particular. When a bison wallows in a select patch of earth, rolling and rollicking on its back and kicking up its heels, alleviating itself of flies and



Cow and Calf. Photo by Chad Hedinger

enjoying the sport, the prairie habitat is also changed. Dampness is generated, and the bison wallow becomes a moist, mini-wetland with its own diverse species, including tadpoles, fairy shrimp, and chorus frogs. And when a bison dies (males live from ten to twelve years, cows to eighteen), like a whale fall, the bison body remains where it collapses, returning all of its nutrients to prairie earth.

Dr. Horne stopped the car. We were nearly surrounded. The members of a small group of female bison and their calves had found us. Curious and hoping that we might have come bearing treats—bison candy made of alfalfa, grain, and molasses, in particular—they were eager to see us. Around mid-October, treats are used to bring bison in from the prairie to the corrals at research headquarters for their annual check-up and for about thirty individuals to be selected out for sale, a process which keeps the herd healthy and at a manageable size. But now we were surrounded! Cows and yearling calves wandered nonchalantly up to the car, nosed at our windows, stood in the middle of the road, looking yearningly. Some wandered off, but seemed to keep one eye turned toward us.

We were in the midst of a matriarchy comprised of about thirty adult females, their daughters, their calves, and a number of older juveniles. We learned, as we waited for the bison to give up their yearning for treats, that male and female bison self-segregate. (Females, who weigh 900 to 1000 pounds, are half the size of the males who can be 2000 pounds, i.e., one ton! Indeed, the largest mammal on the North American, South American, or European continent!) This matriarchal group surrounding us, however, included some young males, not only this year's growing boys, but also those young males who had lingered on with their mothers from last year or the year before. By five years old, if not before, young bulls leave the matriarchal groups, forming their own fraternities,

before they join the club of truly big boys. The youngsters in the group surrounding us were not only smaller and a rust color in comparison to their dark-haired mothers, but their small horns—mere nubbins—identified them as newly born this year. Their mothers were readily identified by their immense humps of muscle and their sharply pointed horns curving slightly forward. Wolves are not permitted on the Konza, but the horns of a mother bison, protecting her calf, could toss a preying wolf sky high. Also distinguishing this contented group of cows were the open wounds, alive with flies, raw and suppurating, on most of their haunches: the certain sign that a male had recently come visiting them, bracing his hooves on their backs, inseminating all those who were ready.<sup>1</sup>

Gestation for young bison is almost the same as it is for young humans: 285 days. Young bison grow quickly, suckling rich milk from the four teats of their mothers' udders very soon after birth. Twin bison are seldom born, so the newborn gets it all. (Although, as Dr. Horne explained, one shouldn't consider milking a bison! A significant difference between wild bison and domesticated cattle is that the latter can be milked; the former would protest demonstratively.) That initial drink, which begins life, lasts for about thirty minutes, and then the calf is ready to hit the trail with his mom.

Walt Whitman came up with several answers for his poetic question, "What is the grass?" But for a bison, there is only one answer: Food and Drink, for grass supplies both nourishment and water. Born with four stomachs, bison quickly learn to eat grass the live-long day, chew it, regurgitate it, digest it, repeatedly and endlessly for all of their days. They graze and fertilize the prairie's grasses continuously wherever they travel, in whatever season, including winter when, indifferent to the snow settled on their backs, they dig through the snow on the ground to the grasses below. On the KPBS, however, lucky bison are provided with additional grass in the event of an ice storm.

Bison eyesight is adequate. But unlike domestic cattle with their long luxurious eyelashes, a bison's short eyelashes do not gather ice in a storm. Their nostrils are, however, enormous, their sense of smell acute, their pelage shaggy and thick, helping them endure easily in rain, sleet, snow, and even on burning prairies. Leaving this placid maternal group, Dr. Horne was quick to observe a young bull, limping and wandering about at the tail-end, and noted the number of his ear tag, indicating his birth year. "Wolf bait," said Dr. Horne, "Had we been here two centuries ago." I assumed he would be one of those chosen for culling this year.

<sup>1</sup>For much of my factual information regarding bison, I am grateful to the website: [library.sandiegozoo.org/factsheets/bison/bison.html](http://library.sandiegozoo.org/factsheets/bison/bison.html)





Bison on Konza. Photo by Chad Hedinger

The rain continued as we drove on, meandering up on the two-track along a higher plane. Ahead, the horizon seemed to have melted into the earth although I might have been confused by the fog on our windshields. Gradually, however, ahead of us another group of females, with their calves and young followers, over a hundred of them, began to become clear, standing stolidly in the rain. I thought of the metaphors for bison which nineteenth-century explorers and travelers, seeing them moving in their millions, had devised, trying to express their astonishment: “one robe . . . the plains were black and appeared as if in motion”; “numerous as the locusts of Egypt”; “as if the ground itself was moving like the sea”; “one black, moving mass spread out far and wide”; “forests of cedar . . . a low, black and undefined appearance, but occasionally shifting to and fro like the dark shadows of a cloud.”<sup>2</sup> These Konza bison were not, however, on the move. Easily gregarious, they seemed simply to be enjoying one another’s company, content with grazing and with each other’s companionship. Some of them wandered nonchalantly toward our car, checking to see if we had come bearing treats, but most were complacently grazing in the rain, while those spread out over the prairie beyond us in the mist, remained vague and distant outlines. As the rain intensified, and as many of the herd folded their legs beneath them to sit down, those in the distant fog gradually seemed to turn into immense boulders. Defined as being “nomadic and non-territorial,” these bison seemed just settling in for a long, rainy day.

Among this herd of matriarchs and their offspring, one particularly enormous individual stood out. His immensity gave him away as a male, and Dr. Horne identified him as probably the single individual responsible for the wounds on the haunches of the females in the first group we’d encountered. In an image which might have

been chosen by one of those nineteenth-century writers, he loomed above the females in this group like a thunder cloud. Rain dripped from his beard, and he stood stolid, his harem gathered around him. Gradually, as he remained standing, the females stooped and kneeled down all around him. We learned not only that a group of all male bison were located beyond the next gate, ready to rush forward if we opened it, but also that this single, imperial individual had probably already serviced both of the two groups of females we’d seen.

Male bison, leaving their mothers and other females at two or three, become part of a bachelor group of young males before they join a group of older males. The older and heavier a male bison, the more dominant he is among his peers. However, no one stays in power forever. Young bulls act out aggression in play; however, when the older boys go at it, they are ferociously serious. Bellowing, stamping, snorting, roaring, they approach each other, shaking the pantaloons on their forelegs, holding their short tails up high. Dr. Horne told us that their roaring can sound astonishingly like ferocious bears. Tension mounts during these stand-offs, and soon one bull bashes another head on. The thick mat of hair on their foreheads serves as their football helmets, probably giving them more protection than the helmets in use all over the United States on this football Saturday. However, an energized bison can gore his opponent with a quick thrust of one of his sharp, short horns. Or he may just threaten his opponent, nodding his head vigorously up and down until the other bull submits, turning his head submissively sideways and retreating. Competing with each other, a male may take a break to wallow and then to urinate in the wallow. He then rolls in the water before resuming his stand-off, empowered and odiferous. When it is not mating season, older male bison may become pals, or simply wander off across the prairie, alone and

<sup>2</sup> See Harold P. Danz, *Of Bison and Man* (Niwot, CO: University of Colorado Press, 1997, 2016)

solitary, providing photographers with his iconic silhouette against the setting sun, perfect for a calendar of western images.

In the KPBS, following the October round-up, bison herds are brought together for health examinations and culling. No longer is it possible on the Konza to see herds miles wide, moving as a single, immense organism, as nineteenth-century writers described them. However, even while this matriarchal herd before us became increasingly somnolent as the rains increased, I was imagining bison on the move: calves safe in the interior, females circling the calves, males predominately on the outside, creating a protective, moving barricade. I imagined them walking together, speeding to a trot, galloping, bounding. I had read that when prompted (by wolves or arrows which were no longer in sight here on the Konza), bison could run at forty miles per hour and leap over barbed wire fences. Ten years ago, at Yellowstone National Park, in early spring I'd also watched a matriarchal herd—grandmothers, mothers, young calves—swim together across a flooded river, the older members of the clan nudging the younger members to swim on to dry land downstream. I have worried to this day about an elderly bison left behind on the river bank in this spring rush.

Ahead of us, beyond this immense group of cows, lay another gate, and on the other side of this gate, Dr. Horne told us, that gang of rambunctious young males. Also ahead of us was lightning. It seared the sky, one jagged streak following another. Bison are as impervious to lightning storms as they are to ice storms. They just keep on grazing. Dr. Horne was concerned about our safety, however. She wouldn't put it past the eager, young guys

up ahead to push beyond the gate as she was opening it. At Yellowstone, I remembered, we were told that bison have proven more dangerous to visitors than grizzlies. Dr. Horne was also concerned about the lightning zig-zagging through the clouds. We turned back, pelted by rain.

At the KPBS administrative buildings, a few rain-soaked bison had wandered into pens of their own accord. "Looking for nitrogen," said Dr. Horne, explaining that not only was it available in the corral but also that the necessity for certain minerals in their diet could motivate bison to migrate. Soon these pens would be full of Konza's bison; they would be weighed, tested, inoculated, and 275 would be selected to stay on the Konza with some purchased for ranches, for meat packing plants, for private farms. No Konza bison, however, would be migrating.

Those selected to stay are a token of the millions known to Native Peoples in spirit and in story, of the millions seen and recorded by early white explorers, of the millions slaughtered to near extinction by whites seeking their own gain. But with bison no longer reduced to mountains of bones on Kansas plains, their hides turned into coats, their tongues into culinary delicacies, no longer harnessed to pull carts or ridden in rodeos, with bison now not only appearing on several state seals (Indiana, Iowa, Kansas, North Dakota, Wyoming, and the Department of the Interior) as well as having been chosen in 2016 to be the nation's national animal, perhaps these 275 American Plains Bison on the Konza prairie, along with over 500,000 others on the North American continent, will continue to be cherished as an intrinsic part of our shared earth community.

## WHERE BISON MAY BE SEEN IN KANSAS:

Dillinger's Lazy Heart Ranch: Wheaton, Kansas

Frontier Park: Hays, Kansas

Historic Scott State Lake: Scott City, Kansas

Konza Prairie Biological Station: Manhattan, Kansas

Maxwell Wildlife Refuge: Canton, Kansas

Red Buffalo Ranch: Sedan, Kansas

Tallgrass Prairie National Preserve: Chase County

Ted Turner's Z Bar Ranch: Barber County



# “Murmuration: An Epitaph”

Could we all go  
as starlings do—in a cloud  
of dots and blotches, rise  
with wind and wave  
and fade above the black bones  
of winter’s branches.

The starling  
cocks its head  
and pecks, eats  
worms, seeds,  
dried French fries.

What the robins miss,  
the squirrel gobbles up,  
the seeds bulging  
in his cheeks.

It takes a few  
scissors of the beak  
to bring down the seed,  
but once in, the starling  
just nods and bends again.

“Who are we?” quail  
call. Some say, “Bob  
White,” which is  
so less existential.

A bird  
small enough  
to land on a pampas plume  
does, rides out  
the autumn wind.

Birds on a line  
lean in  
to wind,  
ruffle, huddle  
when it grows  
so so cold.

Kevin Rabas, Kansas Poet Laureate 2017-2019

Photo by John Charlton/KGS



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