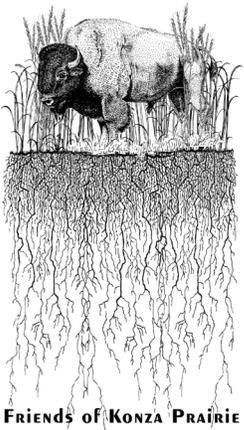


@ Bluestem



FRIENDS OF KONZA PRAIRIE

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Redbuds blooming
Photo by Michael Haddock



Redbud and Oak
Photo by Diane Barker

Research

Education

Conservation

Bison

APRIL 30 Get Around 2 It - Blue Earth Plaza

MAY 2 Kansas Sampler - Wamego

JUNE 7 Annual Wildflower Walk - Konza

JUNE 12 Grasslands of the World Symposium

See pages 14-15 for more information



April 2015



PRESIDENT'S MESSAGE

Diane Barker

Phenology and Fire

It's March 17 in the Flint Hills and that means phenology and fire. Phenology, the practice of noting when cyclical events occur for plants and animals, is one of our most basic survival tools and a fascinating pastime.

What are the signs of spring that you look for every year out on the prairie? Here on Bluebird Hill, 16 miles north of Konza Prairie Biological Station, wild parsley, prairie groundsel, wavy leafed thistle, sagewort, ground plum (2 plants with blooms), and Dakota verbena have poked through the powdery, drought stressed soil. Whose voice do you long to hear wafting on the warming, sunlit air? Is it the soft, waterfall trill of the bluebird or the "Peter, Peter, Peter" of the tufted titmouse? The return of the greater prairie-chickens to their booming grounds is one of the more spectacular events eagerly awaited on Konza.

Scientists keep track of emergence dates for plants such as first leaves, blooms, fruits, and seeds. They track bird migration dates of arrival and departure, nesting, egg laying, hatching, and fledging, because disruptions to the normal patterns of plants or critters can signal dangers. From cotton rats and deer mice to Cope's gray tree frog, ticks and mosquitoes, they all matter. With increasing temperatures and drought conditions, it will be important to have long-term records like Konza's plant list to accurately chart changes in the grassland. Valerie Wright began the Konza's plant phenology list in 2001 and still maintains it with reports from scientists, researchers, and qualified docents.

I encourage you to join the Saturday morning Konza hikes with docents because they are always looking for what's new along the trail, be it plant, birdsong, lizard, juniper hairstreak, thirteen-lined ground squirrel, or ornate box turtle. If you are walking with Nancy Goulden or Earl Allen, they will probably put your name on the phenology report just to get you started. A local practical use of phenology is to watch for the redbuds to bloom and then visit your secret morel patch, making sure you are not being followed.

Fire is the other spring preoccupation in the Flint Hills and on Konza. The burns are well underway, and you can follow the progress on the watershed map at (<http://kpbs.konza.k-state.edu/docs/burns-2015.pdf>)

I have a cautionary tale that I hope might spare someone the dangers my neighborhood experienced on March 13. Driving home from town, I rounded a curve that puts my house in view across our little valley. The smoke billowing up behind the house and barn made my heart thump, hard. I watched the Fire Chief's truck leave the neighbor's drive and head up mine. By the time I got there the fire was 20 feet from the barn; one man with a rake was holding the flames at bay. The pasture was black and the fire truck was hidden from view down in a ravine to the west.

If not for Pat Collins, Emergency Management Director, and Fire Chief of Riley County Fire District #1 and all of his remarkable volunteers, our barn would have at least caught fire. Pat Collins called in crews from Tuttle Cove Road, Keats, Tattarax, Blue River Hills, and Blue Township in Pottawatomie County sent two trucks. There were two other fires that night, one starting in Wabaunsee County and burning all the way to Deep Creek and Pickering Rd., the other in Pottawatomie County. We were fortunate to get so much help on such a busy day. They cut three gaps in the six strand barbed wire to squeeze the fire to a standstill before it reached the intersection of Highway 24 and Seth Child Road. Crews burned firebreaks and cut down a few trees in ravines to stop the fire from spreading to other houses.

I'm telling this tale in part to thank the volunteer fire crews across the region for their dedication and service to their communities. I hope these tips from Pat Collins help to make us all more fireproof.

- Trim low branches from pine and cedar trees 5' up the trunk.
- Create a 50' green space barrier around your house. That way if you're not home when a fire comes through, it gives fire crews some time to get out to the house.
- Keep hoses coiled and ready to be hooked up to water. During the fire season, keep them hooked up to all spigots around the house. In an emergency there isn't time to be hauling hoses from one spigot to the next.

These few simple suggestions could save property and lives. It's a long burn season and accidents happen. Please do all you can to be safe.

I need to make a correction to the January President's Message. FOKP will not be celebrating its 20th anniversary in 2015, but KEEP will. FOKP started in 1994, so last year was the 20th anniversary. The Publications Committee has a plan to mark our 20th in the next issue of the B&B. We will be sure to catch our 25th in 2019!

Thank you to all of our wonderful FOKP members for your continuing support and the myriad ways you assist the organization. Your contributions make the Konza Environmental Education Program possible, and it has become an important community resource. When you volunteer your time and skills to help with programs and special events, we all benefit.

Please continue to share the *Bison & Bluestem* with family and friends. It's a great way to let people know about the opportunity to help provide environmental education for our children and grandchildren. We had a great turnout at the Cure for Cabin Fever. The Red State Blues Band was in fine form, and members did bring friends! We have an amazing Spring Event put on by The Nature Conservancy coming up in June at Konza. There's a buzz about NEON, and we are participating in the Visions of the Flint Hills Art Benefit and Sale. Be sure to read about all the upcoming events on page 14.

As the school groups get started and you have exhilarating hikes and plant identification labs, or if you were the lucky one who spotted the upland plover, do not KEEP it to yourself!

Finally, I hope you got your potatoes planted and still had time for green beer.



ground plum, photo by Jan Adams

Dear members of the Friends of Konza Prairie,

It is spring break on the K-State campus as I am writing this article and for a change, the campus doesn't appear to be very busy. There are lots of parking places and it is easier to drive around campus. However, for most K-State faculty, this week represents a time when they can get caught up on things. For example, I am frantically trying to get some dreaded paperwork done this week as the burning on Konza Prairie has slowed down due to high winds and for some much needed moisture. Since Konza relies on fees to operate, the state of Kansas requires all fees to be justified so that means paperwork! Not my favorite chore but a necessary part of my duties.

Another unpleasant task that I am doing over spring break is coming up with various budget scenarios as K-State prepares for more budget cuts. For those who live in KS, you are very aware of the budget problems KS is facing and as in other states in similar situations (Arizona, Illinois, Wisconsin; just to name a few), higher education is high on the list of organizations that will probably receive reduced support from the state. This is following a year when we already had our budget reduced and it appears that cuts this year may be even higher. I don't want to complain too much and I feel this is an opportunity for me to access the program at KPBS, and as I mentioned in my previous newsletters, search for other funding opportunities for KPBS. I believe most universities are undergoing changes in how they will obtain funding in the future and KPBS needs to change our funding model as well. We will need to increase our private funding from private individuals and foundations as well as seek corporate support. This is new ground for most of us (especially me) and of course, the competition is tough as other programs are doing the same. However, I am positive that if I outline the many positive aspects of KPBS and inform individuals about our needs, we will obtain the necessary funding.

As I mentioned above, the spring burning has begun on Konza and we were able to take advantage of some great conditions in early March and got most of the watersheds that are next to Highway 177 done. This is nice as we require east winds for those units (to keep smoke off the road) and east winds are relatively uncommon this time of the year. As always, one can see which watersheds are planned to be burned and follow our progress as we post that information online (<http://kpbs.konza.k-state.edu/docs/burns-2015.pdf>).



DIRECTOR

John Briggs



In addition, if I am burning with the crew, I usually use my Twitter account (@KonzaDirector) to broadcast which watershed we are burning, and I also try to post some pictures. If the pictures are nice, they were probably taken by either Eva Horne or Barb Van Slyke; the others ones are from me! Even if you don't have a Twitter account, you can follow my posts (including lots of retweets from folks that I follow; mostly about grasslands, prescribed fire and climate change) on the KPBS home page (<http://kpbs.konza.k-state.edu/>).

I hope you visit the KPBS web page often; if nothing else to see what a small portion of the 1D watershed looks like using the PhenoCam link! (<http://phenocam.sr.unh.edu/webcam/sites/konza/>). You might even be able to see the fire crews in action when we burn 1D later this spring. This camera has been on site since March 17, 2012, and has taken over 30,840 pictures (all of which are publicly available). This camera is part of the PhenoCam Network (<http://phenocam.sr.unh.edu/webcam/about/>). The goal of the network, which is funded by the National Science Foundation, is "to function as a continental-scale phenological observatory, spanning as wide a range of biogeoclimatic zones and vegetation types as possible". This network is one of several national networks that are on KPBS. In a later newsletter, I will try to remember to discuss the various other networks we have on-site; and we do have an impressive number!

As always, please contact me (jbriggs1@ksu.edu; 785-532-0140) if you have any questions or concerns about KPBS as we try to continue to develop as one of the finest biological field stations in the world.

John M. Briggs
Professor of Biology
Director of Konza Prairie Biological Station
Kansas State University
Division of Biology 104 Ackert Hall
Manhattan, KS 66506
785-532-0140

FROM THE STONE HOUSE...

Jill Haukos, Director of Education



Prairie-chickens at Konza

Prairie-chickens are an iconic species of the grassland. Here in the tallgrass prairie we have the larger, darker greater prairie-chicken and in the shortgrass prairie of western Kansas one may find the smaller, paler

lesser prairie-chicken. In the upper midwest on the edges of the woodlands is the sharp-tailed grouse, which has a pointed tail and a spotted chest in contrast to the flat-edged tail and striped breast of the prairie-chickens. All are in the same genus – *Tympanuchus*, and they all look and act very similar. *Tympanuchus* refers to a drum, reflecting on the drum-like booming calls of these male grouse.

These plucky birds represent a vestige of a bygone era, one of roaming bison and miles of undulating grass. To hear their booming courtship calls in the spring is to be transported back to that earlier time and to bear witness to something very rare. It is estimated that a healthy prairie-chicken population needs somewhere between 20,000 – 30,000 contiguous acres of prairie. Since the 1870's, over 96% of the tallgrass prairie has been plowed or developed and as the prairie goes so goes the prairie-chicken. Their numbers are dwindling and the lesser prairie-chicken recently obtained the status of “threatened” under the U.S. Endangered Species Act.

However, the grassland and the prairie-chickens remain in the Flint Hills. Here we can still experience these birds, at least the greater prairie-chicken, which has the most stable population of the three grassland grouse species.

Prairie-chickens use a lek system for an intense social networking process. Males visit these bare, elevated regions to see and be seen; to hear and be heard. The loud booming vocalization of the prairie-chicken seems to roll over the prairie, disconcerting the listener. “Where is that coming from? It seems to be all around us!” Successful leks may be used for years – research shows lek fidelity to be between 90-95%.

In other words, once a lek is successful, the birds come back every year.

The males begin visiting the leks as early as February. It's here where they establish their pecking order; the order of dominance that determines who gets to breed, and the more aggressive a bird is, the better his status. A visitor to a lek can surmise who the dominant male prairie-chicken is; he's the guy in the middle. Actually, there may be two guys in the middle. The birds in the central portion of the lek do the majority of the breeding. Biological success is defined as the ability to produce viable offspring and without the transfer of their gametes (sperm) to the hens the male prairie-chickens will never be biologically successful. No big deal... but it's a huge deal and the birds will be focusing all of their attention on what territory they can win at the lek.

The chickens on the periphery of the lek are the omegas – further down in the social structure. Not that the social hierarchy is a static thing! Skirmishes and battles are common on the lek, especially early in the season. Talons and beaks are bared and it's no-holds barred. The hormones are flowing and clouding their judgement – the birds may never see or hear the humans in a blind watching their drama.

Males not only have to establish their spot in the hierarchy, they also have to attract the females. Males exhibit elaborate courtship displays of calling (“booming”), dancing, and flutter-jumps while on the lek. The females watch from a distance and typically mate with one of the dominant males in the center of the lek and then leave to find a nesting area in the denser vegetation. A good lek will have dense vegetation around it – to allow the hens to hide but still watch the guys and to allow the guys to escape if danger approaches.

If you're thinking that the guys have the hard job in the reproduction process, you're not seeing the whole picture. Once the male mates with a hen then he's done with her. The male has no role in the incubation of the eggs, nor in the care of the brood.



photos by Jill Haukos

A hen only needs to mate once. Seeing many hens on a lek is a rare experience and usually reserved for the second week in April. Once she mates she'll leave the lek to find a suitable area for a nest. Suitable means vegetation thick enough to shield her and her brood from the eyes of hawks and the nose of the coyote or skunk but not too thick that she doesn't see danger approaching. One egg is laid each day until the full clutch of 12 eggs is produced. The nesting period is by far the most dangerous time in the life of a hen and the potential life of the brood. Less than 10% of nests on Konza Prairie are successful due to predation and nest destruction.

The story of the greater prairie-chicken is still being told on the Konza Prairie and you have the opportunity to witness it. Docents from the Konza Environmental Education Program have volunteered their time and energy to lead groups out to the one active lek on Konza. Groups meet at the Hwy 177 scenic overlook 1.5 hrs. before dawn, drive to within 0.5 mile of the lek, and then walk the rest of the way in. The experience is singular and available to you (\$25/person; call (785) 587-0381).

You're invited to see an exhibit of grassland grouse photos by Noppadol Paothong, "Save the Last Dance, A Prairie Ballet", which is at the Flint Hills Discovery Center until May 17th.





A Conversation with Konza Scientist Dr. Walter Dodds

by John Harrington

On Tuesday morning, October 7th, I met with Walter in his office on the first floor of Bushnell Hall. Dr. Dodds is a University Distinguished Professor and a Fellow of the American Association for the Advancement of Science. The tone was affable as he shared responses to my questions. He has been working on the Konza since 1990 and has been responsible for maintaining the aquatic ecology LTER dataset since 1993.

What type of scientist would your colleagues say you are?

“Biogeochemist.” We then went on to discuss how the general public might use the term: aquatic ecologist. Water quality investigations would be both a scholarly and an applied aspect of Walter’s work.

What aspect(s) of your work fits well within the long-term mindset of the LTER effort?

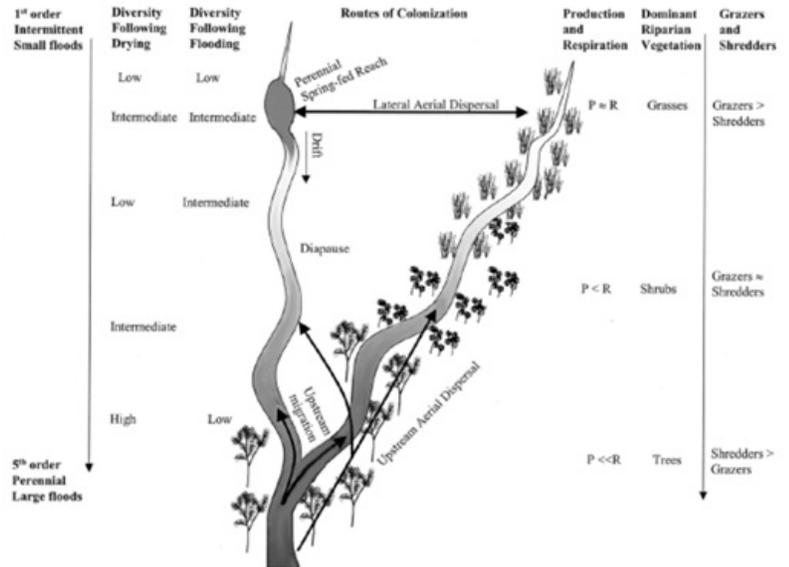
The first thing mentioned was the expansion of woody vegetation along the tributaries to Kings Creek. However, Walter quickly transitioned to discussing water chemistry and the increase in ammonium over time, the role of atmospheric deposition of nitrogen, and documenting stream responses to the increase in the number of dry periods.

What is the value of the experimental stream setup?

Working with Dr. Keith Gido, they now have 36 units in the experimental stream system. The value comes from being able to replicate experiments and provide for control in experimental design. Keith uses the experimental stream system to better understand impacts on organisms whereas Walter studies ecosystem responses to disturbances.

What are you most proud of?

Walter quickly mentioned “documenting the importance of grassland streams.” In a paper that was published in *BioScience*, Walter produced a conceptual model for grassland streams (see figure). The figure illustrates that these ephemeral streams and their biologic communities will go through a process of rebirth following a drought, with some things moving downstream from springs and others moving back upstream.



What have you found out about inter-annual variability?

There are considerable year-to-year changes and aquatic habitats are really important. “People don’t think about streams and the prairie together.” The changes over time have made for an interesting laboratory for study.

How long have you been with the Red State Blues Band?

“Eight years; it is a good outlet.” In our conversation, he mentioned that musical activity enabled creativity that goes beyond just the performances with the band and that creativity helps with scholarly thinking.

Walter wanted to be sure to share that he has been fortunate to work with a really extraordinary group of colleagues, including Keith Gido, Matt Whiles, and John Blair.



DOCENT SPOTLIGHT

Hallie Hatfield

Assistant Environmental Educator



Joe Mosier is a 2011

graduate of the Konza Prairie Docent Program. Since then he has been an active and dedicated docent for guests visiting Konza Prairie. Joe led 50 activities in 2014 alone! He is indeed an invaluable asset to the Konza Environmental Education Program.

What motivated you to become a Konza Prairie docent?

I found an article in the paper about the Docent Training Program and called Annie Baker to learn more. I love the great outdoors and wanted to share my passion with children. The docent program has allowed me to do so.



photo by Jill Haukos

What are some of your hobbies & interests?

I enjoy reading, specifically non-fiction books. Some topics I'm interested in are the origin of the human race, evolution, stories of settlers, archeology, ornithology, and ecology. If I'm not volunteering with the Konza Environmental Education Program or the Flint Hills Discovery Center, you might find me out hunting arrowheads. I have a vast collection of relics that I have assembled over the years.

What has been the best part of being a volunteer at Konza Prairie?

The best part of being a volunteer at Konza Prairie is working with the children; to have them stop, look, listen, touch, see and smell things. I like seeing the smile on children's faces and watching their reaction to trying a juniper berry for the first time. Making a difference for kids is the best part of being a volunteer at Konza Prairie.

What brings you the most joy in your life?

Spending time with friends and family is what makes life worthwhile. I like hiking with friends who enjoy nature and looking for remains of man's past. I also enjoy watching the KU Jayhawks.

SPOTLIGHT on Lincoln & Dorothy Deihl

Friends of the Konza Prairie

by Valerie Wright

It was with interest that Lincoln heard of The Nature Conservancy and Kansas State University developing a research and conservation area near Manhattan. Lincoln and Dorothy Deihl had moved to Manhattan only recently in 1979. After teaching many years abroad, they had chosen K-State to be their professional home.

As newly minted Ph.D.'s from The Ohio State University, he in business administration and she in anatomy and physiology, they married in 1954 and in 1955 they had travelled to Turkey to teach at Robert College in Istanbul. This began a series of posts in the Middle East and Africa, including five years at the American University in Cairo, Egypt, two years at Pahlavi University in Shiraz, Iran, two years in Ethiopia at Haile Selassie University, four years in Nigeria and one year in Kathmandu, Nepal on a Fulbright Scholarship.

Lincoln helped develop MBA programs and Business Administration departments for local universities, as well as teaching MBA students, in all of those places. Dorothy found local contracts when she could and took courses in Arabic studies, Egyptology, and local cultural characteristics.

Dorothy and Lincoln loved to hike, and the Nature Trail on Konza became one of their favorite places. They enjoyed all the Wildflower Walks and were constant supporters of Friends of Konza Prairie and the Konza Environmental Education Program. After Dorothy passed away, Lincoln continued to walk the trails. The Konza Prairie Nature Trail is for people like the Deihls, who love nature and spend time enjoying the outdoors. We are fortunate to have such loyal sustainers for the FOKP mission.

2015 DOCENT AWARDS

Karen Hummel

The Konza Environmental Education Program (KEEP) model relies upon the existence and participation of a cadre of trained docent volunteers to assist with hikes, tours and science education activities. Docents and friends met in the Konza historic barn conference center on January 10 to welcome new docent trainee graduates and celebrate outstanding docent achievements. Konza Director of Education, Jill Haukos, and Assistant Environmental Educator, Hallie Hatfield, presented the awards. The honored docents are listed below.



New Master Docents Doreen Towne and Carol Gadbury.



Assistant EE, Hallie Hatfield, and Director of Education, Jill Haukos, with Docent trainee of the year, Anna Zahner.



Assistant EE, Hallie Hatfield, and Director of Education, Jill Haukos, with Docent of the year, Jan Adams.



2015 Quality Docents – these volunteers have led at least three activities and participated in at least three in-service training programs. Most have exceeded these minimum requirements.

Konza Trail Guides – a new program!



Attendance on the Nature Trail has reached all-time highs. This may be because of the increased visibility of the Flint Hills Discovery Center or perhaps because of word-of-mouth about the beauty of Konza Prairie. Regardless of the cause, there is no doubt that the Nature Trail is accommodating an increasing number of visitors every year.

With an increase in the number of visitors comes a correlated increase in the number of site rule violations. Many people who visit the trail for the first time are unaware of the Konza policy of no dogs allowed on the trail. Or, a person may have seen other walkers on the trail with their dogs and reasoned that if those people could bring their dog, why couldn't they?

In an attempt to ensure rule compliance and maintain the integrity of the site, KEEP has enacted a new program, the Konza Trail Guides. This program asks our trained docent volunteers to simply walk the Nature Trail on their own time. While walking the trail, docents are wearing a Konza Trail Guide vest that easily identifies them as a representative of Konza Prairie. This increase in visibility will encourage our visitors to comply with the rules and perhaps even pay the requested trail donation! Additionally, the Konza Trail Guides will serve as a wonderful resource for information to our visitors.

The beauty of the program is its simplicity. Konza Trail Guides do not need to be scheduled, participants simply visit the trail on their own time. They do not need to accost non-compliers, simply be present and visible to remind visitors that their actions are being noted. Guides will also serve as a great source of information and interpretation for groups seeking education.

The vests have been ordered and everyone who has indicated a desire to be part of the program will receive a vest to use. Hours spent walking the trail will be noted as docent activity hours, so long as they are reported to Hallie. To report Trail Guide hours, call 587-0381 or email keeped@ksu.edu.



Cure for Cabin Fever – Music Reigns in the Konza Barn

By Karen Hummel



FOKP self-proclaimed weather man and official Program chairman Jim Koelliker welcomed FOKP members and guests to the Cure for Cabin Fever event on January 26 for an afternoon of music, fellowship and food. Jim declared the day to be perfect soup weather, dry with a bit of nip in the air.

Entertainment was provided by the Red State Blues Band. The Band is a nine-member ensemble devoted to performing a variety of authentic blues styles stretching back across the past century. Some of their favorites are “Let the Good Times Roll,” “Good Time Woman”, “Jump Stop Boogie”, and “Mystery Train”.

Members of the band include:

John Blair on guitar. John is a University Distinguished Professor in Biology, specializing in grassland ecology. Walter Dodds plays the harp. Walter also is a University Distinguished Professor in Biology, specializing in aquatic ecology.

Steve Dyer is found on the keyboard. Steve is a professor of Electrical Engineering who is nationally recognized in the field of instrumentation and measurement.

John Fellers is the sound engineer and sings vocals. John is USDA-ARS molecular biologist and Adjunct Asst. Professor in the Dept. of Plant Pathology.

Bernd Friebe, on guitar, is a Research Professor in Plant Pathology.

Seth Galitzer, a Systems Coordinator in Computing & Information Science, performs vocals and plays the sax.

Mike Herman, Division of Biology, specializes in genetics and playing bass. Dean Vellenga, the band’s drummer, is also an Information Technology Consultant at K-State.

Finally, **Elaine Becker**, singing vocals, is a home manager in Topeka.

As you can see, most of the band members have “day jobs” at Kansas State University.

The band entertained us for an hour. As they played, more and more FOKP guests filtered in to the audience, until the entire barn was filled with music and enthusiastic listeners. Following the band performance, everyone filed into the conference room, where the north end had tables laden with fourteen kinds of soup, bread, beverages, and desserts. Eighty FOKP members and friends enjoyed this happy occasion. We always enjoy the opportunity to see our FOKP friends, but this may have been the best Cure for Cabin Fever yet.



Youth-Full Perspective

Claire Larkins



I remember when I was a little kid going out in the hills with my dad, and not really caring how important Konza was in the realm of research. I was out with my dad, in boots, and I had fun just being a “farm girl.” The Konza was (and sometimes still is) my farm, in a sense. I came along to feed and round up bison, check on fences, creeks and roads, cut and bale hay, and fill water trucks. That was farming to me, because that is, in a way, what all the neighbors did, and I wanted to do farm work, like my dad did. Helping him, and being in the big stick-shift trucks that were noisy and bumpy, dirty on the inside and rusty on the outside, made it that much better. There isn’t a lot I would trade for the time I spent with my dad, doing real work.

I have now grown to love the Flint Hills for their beauty. I honestly think that on top of the Flint Hills is the most beautiful place you can be. Now, I am probably biased, since I have lived in these hills all my life, but I have been other places, and I love the hills most of all because their beauty varies. Hills are things that repeat, so you can be on one hill, and see another next to it. You can have many different perspectives in the hills. In fall, the bright colored trees stand out among the brown hills. In winter, the hills are white against a gray sky. In early spring, the hills vary from being brown, to black from recent burns; in late spring and summer, everything is green and new. You can be in the valleys, where a slope gradually forms, or halfway up a hill, where you can see the trees down below, but the hills still tower over you. Or you can be at my favorite place of all, the very top of the Flint Hills, where you feel like you are on top of the world. Trees or buildings don’t limit you from seeing everything, and the enormous sky is half the view.

I guess I never really think about Konza being a research station. It seems more to me than that. I would rather think of it as a peaceful place that I can always go back to, and to remember who first came and lived here, the people who took in the beauty for what it really was. Everyone is always telling me how lucky I am to live here. And I guess I sometimes take it for granted. Living on a research station isn’t really the thing that makes where I live unique. I love where I am because it hasn’t or won’t change. Konza is more than a research station to me; it is home.



Photo by Chod Hedinger

NEON on Konza

By Karen Hummel



NEON core tower on Konza, during construction in 2014

NEON. The word conjures up an image of the Las Vegas strip, bright lights and action. Think again. NEON, as an acronym for National Ecological Observatory Network, represents a vast initiative to understand the long-term ecological health of the United States.

Funded by the National Science Foundation, NEON is being constructed to measure, record and analyze the interaction and effect of human activities and land-use changes on the world in which we live. Data will be collected for 30 years, from 2017 – 2046, at 106 sites in 20 domains across the US. The 20 domains represent different regions of vegetation, landforms, climate and ecosystem performance. NEON data will be used to answer critical questions about the impacts and interactions of climate change, land use change, invasive species and other factors on the soil, atmosphere, water and life forms in each of the domains. The data will be available to researchers, educators and the public, free of charge.

Konza Prairie has been selected as the core field station for NEON Domain 6, the Prairie Peninsula Domain. The field station at Konza will include one permanent data collection core tower, one movable data collection tower, stream sites on Kings Creek and McDowell Creek, bird grids, mammal trapping, tick grids, biodiversity plots, soil plots, micrometeorology sensors, and ground water wells. A soil array will be arranged from the base of each tower, based on predominant wind direction. A tower will also be located at the University of Kansas field station near Lawrence.

In addition to the field data collection, a waveform light detection and ranging instrument (wLiDAR) will be used to collect aerial data to map area landforms and vegetation as well as atmospheric chemistry. The wLiDAR data will be compared with field observations and satellite data to establish topology and vegetation characteristics. These data can be compared for changes over the 30 years of the study.

Dr. Jennifer Smith is the Prairie Peninsula Domain manager. Jennifer received her PhD from the University of Montana. Her staff includes a mammologist, a botanist, two tower personnel, two stream personnel, and seasonal workers.

The Domain 6 permanent NEON tower is visible from the Godwin Hill trail. The movable tower is located in the agricultural field adjacent to Konza Lane. The field grids in non-grazed areas will be marked by melon pink rebar. Field grids in grazed areas will utilize low profile survey markers. NEON has taken care to avoid establishing research plots in areas of ongoing Konza research.

The NEON initiative developed in three stages. It began with a consensus in the scientific community regarding an urgent need for a comprehensive science facility of continental scope, to measure the drivers and responses to ecological change, and to share these data freely in the interest of providing educational resources for the scientific community and the public.

The science strategy phase, including concept refinement, planning and design, took place from 2004 – 2012. NSF funding at that point enabled moving to the construction phase, 2012 – 2017. This phase includes proofing of data collection strategies. Official data collection will take place from 2017 – 2046.

As data are available, we will update the B&B readers, and provide a link to the data retrieval website.

Appendix:

List of NEON Eco-Region Domains – with Core Terrestrial Sites:

- Northeast (MA, NH – Harvard Forest)
- Mid-Atlantic (VA, MD – Smithsonian Conservation Biology Institute)
- Southeast (FL, GA – Odway-Swisher Biological Station)
- Atlantic Neotropical (PR – Guanica Forest)
- Great Lakes (WI, MI – Univ of Notre Dame Environ. Research Ctr)
- Prairie Peninsula (KS – Konza Prairie)
- Appalachians & Cumberland Plateau (TN, VA – Oak Ridge National Lab.)
- Ozarks Complex (AL – Talladega National Forest)
- Northern Plains (ND – Woodworth)
- Central Plains (CO – Central Plains Experimental Range)
- Southern Plains (TX, OK – LBJ National Grassland)
- Northern Rockies (MT, WY – Yellowstone Northern Range)
- Southern Rockies (CO – Niwot Ridge Mountain Research Station)
- Southern Rockies & Colorado Plateau (CO, UT)
- Desert Southwest (AZ, NM – Santa Rita Experimental Range)
- Great Basin (UT – Onaqui-Ault)
- Pacific Northwest (WA, OR – Wind River Experimental Forest)
- Pacific Southwest (CA – San Joaquin)
- Tundra (AK – Caribou Creek – Poker Flats)
- Pacific Tropical

Web site resources:

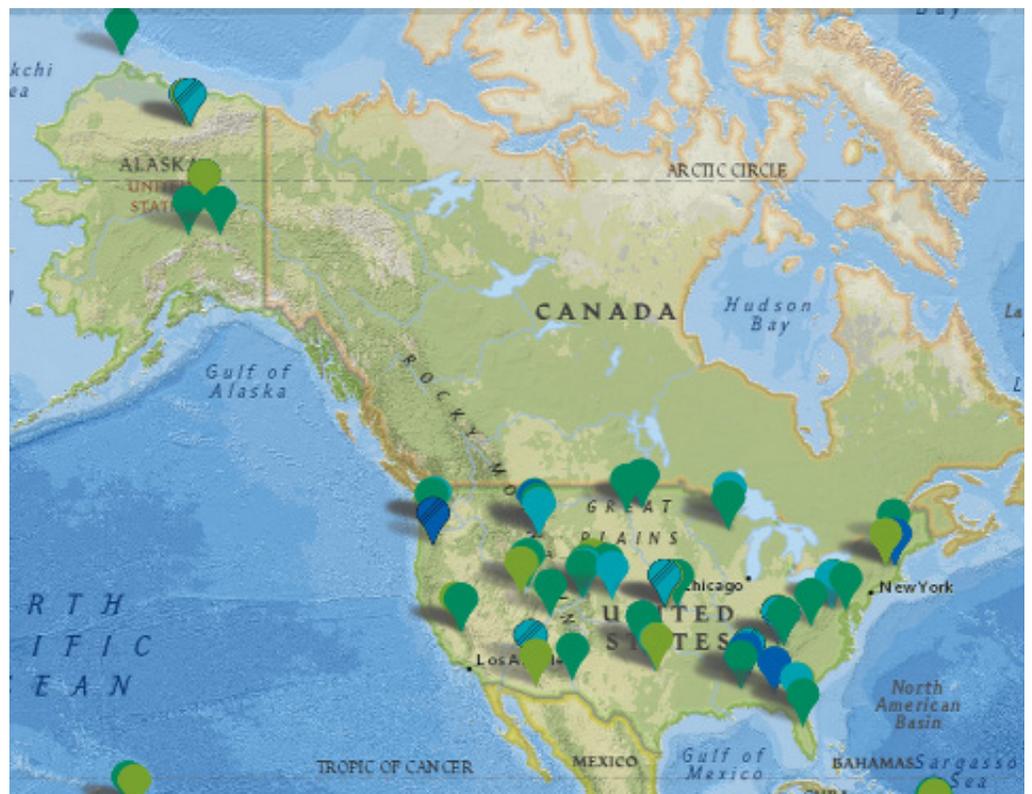
Main NEON web site:

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

Map and list of the field sites:

<http://www.neoninc.org/science-design/field-sites>

Map of NEON Domains



Upcoming Events

By Diane Barker

APRIL 30 5-7:30 p.m. Get Around 2 It - Blue Earth Plaza

There are lots of opportunities coming up to meet your friends, have fun, and spread the word about KEEP and FOKP. Our first chance will be the "Get Around 2 It" event sponsored by the Manhattan Convention and Visitor's Bureau on April 30th from 5-7:30 at the Blue Earth Plaza just south of the Discovery Center. This is an opportunity for people to learn about organizations and events in the Manhattan area. Organizations set up tables and hand out information and freebies. We participated last year and promoted the Annual Wildflower Walk. Come help hand out membership brochures and answer questions about KEEP and the Wildflower Walk.

MAY 2-3 10 a.m.- 5 p.m Kansas Sampler - Wamego

Last year the Kansas Sampler in Wamego attracted a record-breaking 11,700 people. Wamego is hosting the Sampler again this year and the city park will be filled with tents and booths on Saturday, May 2nd from 10am to 5pm and on Sunday, May 3rd from 10am to 4pm. Marcia Rozell from the Manhattan Convention and Visitors Bureau has again invited FOKP to help at the CVB table. We will have a display for KEEP and FOKP brochures. The Sampler has expanded its scope with 14 entertainers and 22 food vendors, so come see what Kansas has to offer. <http://www.kansassampler.org/festival/>

JUNE 7 6:30 p.m. Annual Wildflower Walk - Konza

Our Annual Wildflower Walk on Butterfly Hill is Sunday, June 7th starting at 6:30 pm. The Walk is free to FOKP members and \$10 for non-members, so it makes sense to become a member. We'll need volunteers not only to guide walks but also to take registrations and new memberships. This is one of our favorite outings on Konza, and people come from as far away as Kansas City and New York to ooh and aah over the plants and sunset. It's a great family outing, so bring the kids and cameras. Don't forget the Wildflower Refresher on Friday, June 5th at 5:30 for docents leading the tours on Sunday. Since it's the superstar people want to see, let's hope the Butterfly Milkweed's blooming.

JUNE 12 Grasslands of the World Symposium

Right on the heels of the Wildflower Walk is the Spring Event. FOKP is encouraging members to sign up for The Nature Conservancy's very special event, Grasslands of the World: A Symposium on Global Conservation, at Konza Prairie Biological Station on Friday, June 12. TNC is hosting 11 grassland experts from around the world at both the 10th anniversary of the first Symphony in the Flint Hills, at The Tallgrass Prairie National Preserve and on Konza. The event on Konza is free, but registration is required because space is limited. Go to nature.org/grasslandssymposium to see information on the presenters, the schedule, and to register. From 12:30 to 2:00 p.m. there will be a bus tour of Konza Prairie. From 2:30 to 5:30 p.m. there will be concurrent grassland sessions held in the Conference Center. A reception follows at 6 p.m. at The Discovery Center in Manhattan. Many of the speakers will then be presenters at the Symphony in the Flint Hills the next day, June 13.

This is an amazing opportunity to hear speakers from Brazil, Argentina, Australia, Kenya, Oklahoma, Arizona, Colorado, and Kansas discuss the unique challenges their grasslands face and the solutions they are pursuing. We hope you can join us for this unique opportunity to gain a perspective on grasslands around the world.

FOKP will be directing traffic and providing other assistance TNC requests with logistics the day of the event. Please contact Jill Haukos konzaed@ksu.edu or call 5870381 by May 20th to volunteer.

Upcoming Events

SEPTEMBER 27 7:30 a.m. Konquer the Konza 25K Race

The third annual Konquer the Konza 25K race is Sunday, September 27th, and they have added a 10K. Both races start at 7:30 a.m., so check out the details and register at <http://manhattanrunningco.com/konquer-the-konza-25k-2/>

OCTOBER 2 Visions of the Flint Hills Art Show and Benefit

FOKP has again been invited to be the beneficiary of the Buttonwood Art Space's show, Visions of the Flint Hills Art Show and Benefit. The October 2nd opening coincides with the First Friday, the popular Kansas City art walk. Take a good look at the Buttonwood Art Space and the work from last year's show at www.buttonwoodartspace.com/.

The opening is a wonderful opportunity to meet the artists who have such a great appreciation for the prairie. Buttonwood Art Space is a popular venue with local artists, so the company, conversation, food, drinks and music keep the energy high. We will be looking into transportation for members, so let the Programming Committee know if you are planning to attend the opening. Last year Meadowlark Hills took a bus over and residents had a great time. Visions of the Flint Hills runs through November 27th. The call for artwork opens in April, so tell your artist friends to get their entries in. Invite your Kansas City friends and family to meet you on First Friday in October at Buttonwood Art Space, 3013 Main St. to celebrate art and benefit the tallgrass prairie.

Learn more about First Friday activities in the Crossroads area at <http://kccrossroads.org/about/> and make a plan to join us at the Visions opening. The show and our generous Manhattan sponsors and The Konza Media Group, Inc. in Wichita earned over \$4K for FOKP. Thank you to All involved.



Photo by Ramona McCallum

Donna McCallom, Karen Hummel, Diane Barker, Kathy Drungilas, Valerie Wright, Pat Embers

OCTOBER 3 5:30 p.m. Annual Meeting & Bison Burger Cookout

The Annual Meeting and Bisonburger Cookout is scheduled for Saturday, October 3rd. The Annual meeting starts at 5:30 in the Cortelyou Conference Center. After we read last year's minutes, review the budget and vote on next year's Board members, we move outdoors for the BBQ/potluck at 6:00. Family, friends and potential new members are all welcome. There will be a Bison Loop bus ride at 6:30 for new members. This is a great time to meet the new docent class and catch up on what's been happening on Konza and with KEEP. We need to know how many to expect so we have enough bisonburgers. Please call 587-0441 by Sept. 29. Put it on your calendars now!

Franz Samelson – Konza Friend



We were saddened to learn of the passing of a long-time Konza Friend, Franz Samelson. Franz was a retired KSU professor of psychology. With his wife, Phoebe, he has been engaged in FOKP activities since the early 1990s. Phoebe was one of the prime movers in the early docent training, and helped to develop the initiative that resulted in hiring Valerie Wright as the first Konza Environmental Educator.

Donations may be made, in Franz Samelson's honor, to the Konza Environmental Education Program through the KSU Foundation. Contributions may be left in care of the Yorgensen-Meloan-Londeen Funeral Home, 1616 Poyntz Avenue, Manhattan, Kansas 66502.

Elected FOKP Board Members

Greg Adams, 1st term, 2016***
Diane Barker, 2nd term, 2017
Chuck Bussing, 2nd term, 2016
Elizabeth Dodd, 1st term, 2016
Carol Gadbury, 1st term, 2017
Joe Gelroth, 1st term, 2016
Shelly Gunderson, 1st term, 2015
John Harrington, 1st term, 2015**
Karen Hummel, 2nd term, 2017
Susie Johnson, 1st term, 2015*
Jim Koelliker, 2nd term, 2015
Donna McCallum, 1st term, 2016
Cindy Quinlan, 1st term, 2015
John Reese, 2nd term, 2017
Ken Stafford, 2nd term, 2017

*Susie is serving out Annie Baker's unexpired term and will be eligible for two additional 3-year terms.

**John Harrington is serving out Clancey Livingston's unexpired term and will be eligible for two additional 3-year terms.

***Greg Adams is serving out Doreen Towne's term and will be eligible for two additional 3-year terms.

Committee

Docent, Education
ex-officio on all
Development, Membership, Nominating
Program
Membership
Facilities
Program/Hospitality, Sales, Development
Membership
Publications, Nominating
Education, Facilities
Program, Nominating
Program, Sales
Education
Development, Membership
Facilities

FOKP BOARD OFFICERS

Pres.	Diane Barker
Pres. Elect	Open
Sec.	Carol Gadbury
Treas.	Shelly Gunderson



Ex officio and Honorary members	
The Nature Conservancy	Robert Manes
KPBS Director	John Briggs
Director of Education	Jill Haukos
KSU Faculty Rep.	Tony Joern
KSU Foundation	David Spafford
Historian	Charlie Given
Honorary Board Members	Stormy Kennedy Valerie Wright

FOKP Standing Committees

Nominating Committee (pres.-elect is Chair, 2 Board members, 2 FOKP members at large appointed by President, and KPBS Director)

1. Karen Hummel, Chair
2. Chuck Bussing
3. Jim Koelliker
4. Greg Zolnerowich
5. John Briggs
6. Ann Murphy

Membership Committee (2 Board members appointed by Pres., may have additional members)

1. John Reese, Chair
2. Chuck Bussing
3. Carol Gadbury
4. Jocelyn Baker
5. John Harrington

Education Committee (Chair, 2 public school teachers, Chair of Docent Comm., 1 Biology faculty, Director of Education, others as needed)

1. Cindy Quinlan, Chair
2. Susie Johnson
3. Greg Adams (as Docent Committee representative)
4. Jill Haukos
5. Tony Joern

Facilities Committee (Site Manager, Director of Education, member of Education Comm.)

1. Joe Gelroth, Chair
2. Susie Johnson
3. Tom Van Slyke
4. Jill Haukos
5. Ken Stafford

FOKP President and KPBS Director serve as *ex officio* members on all committees.

Docent Committee (Chair must be a docent and serve as Docent Coordinator, others as needed)

1. Greg Adams, Chair
2. Colleen Hampton
3. Clancey Livingston
4. Ann Murphy
5. Jill Haukos
6. Charlie Given, honorary
7. Phoebe Samelson, Docent Emeritus

Development Committee (Chair, 1 other Board member, Treasurer, Foundation rep)

1. Chuck Bussing, Chair
2. Shelly Gunderson
3. John Reese
4. David Spafford (KSU Foundation)

Program Committee (Chair, 1 Board member, KPBS Asst. Director, Director of Education)

1. Jim Koelliker, Chair
2. Shelly Gunderson
3. Jill Haukos
4. Elizabeth Dodd
5. Donna McCallum
6. Ann Murphy, honorary
7. Barb VanSlyke

Sales and Marketing Committee (Chair, 1 Board member, others as needed)

1. Shelly Gunderson, Chair
2. Donna McCallum
3. Stormy Kennedy, honorary

Publications Committee (Editors of Bison & Bluestem, others as needed)

1. Karen Hummel, Chair
2. Cindy Jeffrey
3. Greg Zolnerowich
4. Jill Haukos
5. Clancey Livingston

Director

John Briggs, Ph.D.

Assistant Director

Eva Horne, Ph.D.

Administrative Asst.

Barb Van Slyke

Shop Foreman

Jim Larkins

Director of Education

Jill Haukos

Assistant Environmental Educator

Hallie Hatfield

Site Manager

Tom Van Slyke

The Friends of Konza Prairie (FOKP) promote the interests of Konza Prairie Biological Station as they pertain to its mission of Research, Education and Conservation. Membership in FOKP is open to all individuals, groups and businesses that share an interest in the common goal of supporting the Konza Prairie Biological Station. For FOKP membership and general information, call 785-587-0441, or visit the Konza Environmental Education Program (KEEP) website at: <http://keep.konza.ksu.edu> Also, see the back of this issue for a membership form.

Friends of Konza Prairie
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#308



Bison & Bluestem is published quarterly by the Friends of Konza Prairie,
edited by Cindy Jeffrey, 15850 Galilee Rd. Olsburg, KS 66520 or email cinraney@ksu.edu

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Annual Membership (and Benefits):

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- \$ ____ Flint Hills \$150-\$249
- \$ ____ Prairie Chicken \$250-499
- \$ ____ Bison \$500 and up
Konza Prairie Calendar

Enclose this information with your tax-deductible check payable to
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Friends of Konza Prairie
Kansas State University
Div. of Biology, 116 Ackert Hall
Manhattan, KS 66506-4901

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our membership list:

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Address: _____

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THANK YOU!

We enjoy being able to publicly recognize and thank our
members for their support. However, if you do NOT wish
to be recognized, please indicate by checking here.

I do not wish to be publicly recognized for my contribution.