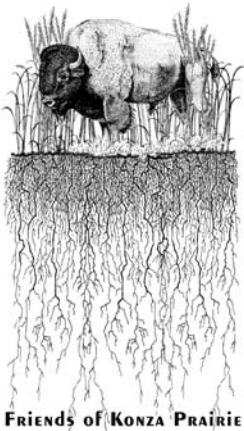
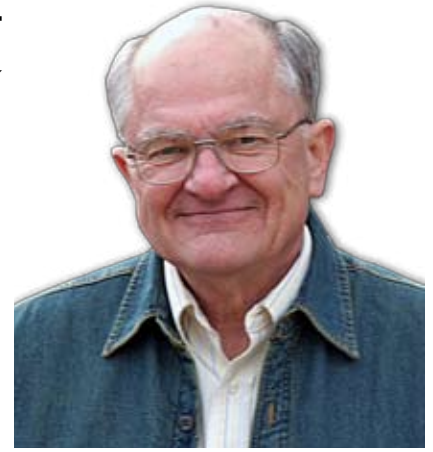


BIG BLUESTEM & BLUESTEM



PRESIDENT PATRICK GORMELY



Thank you for your membership in Friends of Konza Prairie. There currently are about 400 individual and family members of FOKP. Your membership helps to support FOKP's two major efforts at Konza: the environmental education program and trail maintenance. I hope you will help us expand our membership by encouraging family members and friends to join FOKP. Please have them use the membership form contained in this issue of *Bison and Bluestem*.

When your next annual renewal notice comes I hope you can consider moving up to a higher membership category (e.g. from Little Bluestem to Big Bluestem) and increasing the amount of your annual contribution. This will allow FOKP to increase its levels of support to activities at Konza. Our annual membership dues account for about 80 % of our available resources. More than half of our available resources goes to help support the Konza Environmental Education Program, headed by Valerie Wright. Year after year this excellent program makes its very important contribution to environmental education in this part of Kansas. At our February FOKP Board Meeting we learned that in 2008 more than 2,200 students (and 115 teachers) in grades Kindergarten through Twelve visited Konza for guided hikes on the Nature Trail, participation in Science Projects, and Bison-Loop Tours.

Please mark your calendar and come to our FOKP Spring Program scheduled for Sunday, April 19 at the Konza. Ann Murphy and the Program Committee have invited Professor Tom Bragg from the University of Nebraska-Omaha to make a presentation. Tom was one of Lloyd Hulbert's Ph.D. students and has gone on to do research on the grasslands of Nebraska and Australia. His presentation to us will be about the Nebraska Sandhills. (Full disclosure: I have known Tom since the time we were neighbors in Manhattan in the late 1960s. From him I first learned about the benefits of periodic burning, the distinction between headfires and backfires, and about the use of drip torches, etc.) See the additional information about our Spring Program elsewhere in this edition of *Bison and Bluestem*.

You are invited to contribute photos, taken at (or above) the Konza, for possible selection for our 2010 FOKP Calendar. We have produced three calendars so far, and they have made a contribution to FOKP's financial resources. See information elsewhere in this issue about submission details. Thanks are due to Claffin Books and Copies here in Manhattan (especially Stormy Kennedy and Will Latty) for their excellent production of past and future FOKP calendars.

This year in the President's space I want to mention the behind-the-scenes contribution of some of the people who provide so much service to FOKP. Cindy Jeffrey has served as editor of *Bison and Bluestem* newsletter since 2003 and has produced 24 issues! My collection begins with the Spring 2003 issue and I am awed by the record *Bison and Bluestem* provides of FOKP's activities over the years. The pictures and history and technical information contained in its articles are very good. FOKP owes Cindy Jeffrey a big "Thank You" for her contributions.

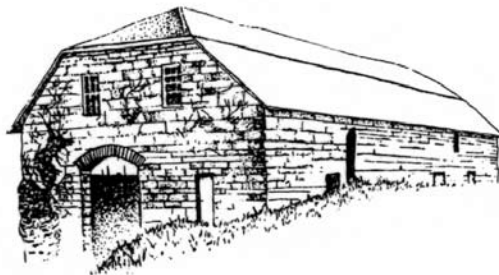
RESEARCH

EDUCATION

CONSERVATION

BISON

Friends of Konza Prairie



SPRING 2009

SPRING PROGRAM:
APRIL 19, 2009 2:00 P.M.
CORTELYOU LECTURE HALL
RENOVATED BARN
DR. TOM BRAGG
- NEBRASKA SANDHILLS -
SEE PAGE 6 FOR MORE INFO



PATCHES
VALERIE WRIGHT
EDUCATION
DIRECTOR

BELOWGROUND AERATION

What comes to mind when you think of aerating the soil? Rollers with metal teeth? Earthworms? What about pocket gophers? If you have been to Konza headquarters and noticed the lawn at the ranch house, it would be because of the patches of dirt in the winter grass. These strange looking hills of soil are produced by *Geomys bursarius*, the Plains Pocket Gopher. Lawn Lovers beware! Your mower won't like these mound builders. But where the soil is deeper on the prairie, such as in the lowlands, the base of slopes and a few upland areas where rocks are limited, this rodent lives happily.

Tunneling is his specialty. A single nine-inch pocket gopher can tunnel more than 100 feet in a single night. Each solitary *Geomys* digs tunnels just below the soil surface while feeding on roots. Plants and young trees can be killed by this root gnawing. Sometimes he will come to the surface to harvest vegetation, especially grass. Since being above ground is not to his liking, the pouches in his cheeks are quickly stuffed with food and belowground he disappears again. The hole to the burrow is plugged with loose dirt from the tunnel. When the diggings are too plentiful, he bulldozes soil to the surface, leaving that distinctive mound. When tunneling, the cheek pouches, eyes, ears and lips are tightly closed, but the large incisors are outside the lips to keep dirt out of his mouth. Large front claws also join in the mining.

The living quarters are much deeper in the ground, perhaps 10 feet or more. There is a nesting chamber, which may also contain food, and a few latrines along the tunnels.

In the process of building the whole tunnel complex, the pocket gopher aerates and mixes the soil and provides entry for moisture deep into the ground. After the high levels of precipitation in 1993, pocket gophers became uncommon on Konza Prairie. The population decline may have been caused by soil saturation, which increased mortality or emigration. By the looks of the ranch house lawn, they may be back!

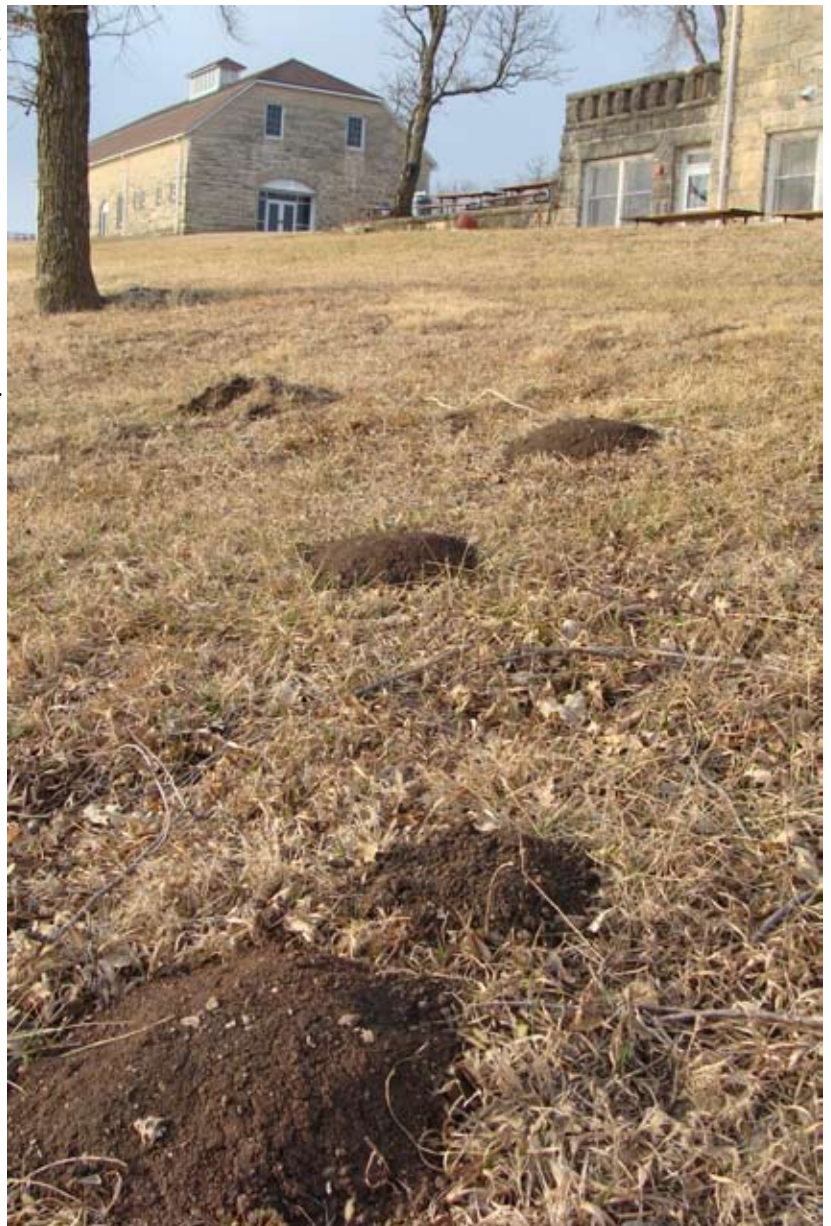


photo by Valerie Wright

KPBS DIRECTOR DR. JOHN BRIGGS



Dear members of the Friends of Konza Prairie,

I would like to take this opportunity to update you on the completely new KPBS website “www.ksu.edu/konza.” If you haven’t visited the site in a while, I think you will be pleasantly surprised. Stephanie Jacques (assistant to the Director of the Division of Biology) was vital to the design, and it is with her exceptional skills, associated with her precious time, that this project was able to be completed. Some of the site (the text) will look very familiar as when possible we took information from the old website (e.g. location and mission statement) but most of it is new, and I would encourage everyone to take a look at it and visit it often as the plan is to update items on a regular basis.

When one first visits the site, you will notice at present, that we have a request for individuals to sign up to help us with our spring burning using an on-line Doodle Poll. In addition, on the opening page, you will notice three items on the right side of the page. They are Research Focus, News and Konza alumni. The purpose of the research focus is to highlight one of many current papers that are being published based upon KPBS research.

The first one focuses on a 14-year study of the summer burns on KPBS. The lead author is Dr. Gene Towne, and it was selected to be the first paper as it shows very convincingly that in ungrazed tallgrass prairie, summer burns can increase plant species diversity when compared to spring burning. Thus, if an owner of tallgrass prairie who does not graze their prairie wants to increase plant species diversity, research conducted on KPBS clearly illustrates that summer burns are best.

The next research focus will be on the genetics of the KPBS bison herd and how this new information is being used to help us manage our herd. The news section will constantly be updated as articles or events about KPBS occur.

The alumni section is an attempt for us to track the many talented and bright researchers who have worked on KPBS. Thus, if you want to contact Dr. Ted Evans (who was one of the first post-docs on the KPBS LTER program), you will find his e-mail listed here.

As you will see, KPBS has been very fortunate to have so many outstanding researchers over the years and

as you might guess when you read what the scientists like and don’t like about KPBS, folks don’t miss the chiggers and the high humidity! But they do miss the great people, the wonderful landscape and associated views of KPBS.

On the side bars on the left on the webpage, you will find links describing the meeting facilities, the KEEP program, the history of the site and information for scientists, including permit application (soon to be totally on-line), safety measures and the fee schedule. A tool that I really find useful and use every day, is the on-line calendar. We (the Konza staff) are using this to increase our communication among ourselves, and we are hoping others find this on-line information useful. If nothing else, you can see just how busy Valerie and Annie are (and you are not seeing everything)! As you will see on the calendar, the new Cortelyou Lecture hall is being used on a regular basis and I expect as the word gets out (we have not advertised its availability), it will be utilized even more. It is quickly becoming a vital component of our program.

Finally, we have a side bar, “Giving Back to KPBS.” As the name implies, it allows visitors to find out they can contribute to one of three KSU foundation accounts that directly support KPBS activities. They include the Konza Prairie Research Excellence Fund, Friends of Konza Prairie, and the Chris Edler Memorial Scholarship Fund. Information about each account and a direct link to the foundation to make contributions is available from this page. As you might guess, in our current financial situation, private support is even more important as KPBS continues to fulfill its three-fold mission of long-term ecological research, education, and prairie conservation.

In closing, I would like to encourage everyone to examine the new WWW site and let me know what you think. It is a work in progress, and I expect it will be useful to you as you find out more about KPBS. I am hoping you will let me know what you like and maybe what is missing. And visit it often!



HERPING ON THE KONZA EVA HORNE, ASSISTANT DIRECTOR

Herpetology is the study of Reptiles and Amphibians. There doesn't seem to be a shortcut word for "Reptiles and Amphibians," so most researchers refer to them as herpetofauna or, just "herps."

KPBS has 34 species of herps, including 15 snakes, 7 lizards, 3 turtles, 8 frogs and toads, and a single species of salamander. It's not a particularly diverse community, but it does have its charismatic members. Most people who walk the Nature Trail have probably seen bright



blue/green male collared lizards perched on rocks in the sun. Males make themselves very visible on purpose as they advertise their

charms for more cryptically colored females and their prowess for any wandering males with an eye to take over a good territory. You may also notice that some of the lizards have glass beads attached to the base of their tails. These are not a body piercing fad amongst the lizards, but have been placed there by researchers interested in which individuals hold which territories and how far they move around the landscape.



The very observant hiker may also occasionally spot a Texas horned lizard lurking along the edge of the trail. These smaller, sturdier lizards look like a pile of pebbles and depend on their camouflage

to escape notice rather than speed. They live almost entirely on ants.



Another very common lizard at KPBS is the Great Plains skink. These are good sized, short legged animals that, unfortunately, spend most of their time underneath rocks, and so will rarely be seen by the casual observer.



The most fascinating lizard species found on KPBS is the slender glass lizard. Most people will tell you that this is a snake, but it's really a lizard (truly!) without legs. You can tell because it has eyelids (snakes have a clear scale over the eye and so can't

blink or close their eyes) and external ear openings (snakes don't hear very well, because they have no opening from the outside into their ears). Also, 2/3 of its total length is made up of a tail that can be broken off at will to distract potential predators, hence the name of "glass" lizard (snakes have very short tails that don't break).



The most abundant snake species found on KPBS is the ringneck, a small snake (max 10 inches long) with a brown-gray top, yellow-red belly, and a yellow or red ring around the neck. You will probably never see one of these snakes on the surface, but they

are very common under rocks in spring. They spend most of the summer underground feeding on earthworms. If disturbed, they will flip their tail upside down and curl it to display the brightly colored underside in an attempt to warn predators that they are dangerous. This is a bluff, as these snakes have never been known to hurt a human.

The snakes you are most likely to see along the nature trail (and elsewhere on KPBS) are the red-sided garter snake, yellow-bellied racer, and black rat snake.



Garter snakes are easy to identify, as they are the only species on KPBS with a yellow stripe running the length of their darkly colored bodies.



Yellow-bellied racers are solid grayish/blueish/greenish with a yellow belly and black rat snakes are solid black with a lighter belly.

HERPING ON THE KONZA CONT.



Black rat snakes are excellent climbers and are most commonly seen in wooded areas.

You probably won't encounter many of the amphibians of KPBS while hiking the trails, though you may hear them singing. The first to start each spring are chorus frogs, which are very small frogs that breed as early as February and will also breed in bison wallows.



Copperheads have been seen in the area around the nature trail. They are also fairly easy to identify, being a tannish brown with darker, broad, brownish bands crossing their bodies from belly to belly. The subspecies of copperhead in this area

is a mild-mannered snake that, like most wild animals, will only bite if harassed. Their venom is relatively mild and, though it can cause a fair amount of pain, is rarely dangerous if treated promptly at a hospital.



The 'tick-tick-tick' frogs that sing all summer are cricket frogs, which are also small and are probably the most abundant amphibian species on KPBS.



A couple of other species common to the station are Woodhouse's toad,



The only other species of snake on KPBS with bands crossing the body is the milk snake, which is much more slender and colorful, with bands of alternating red, black, and white.



the gray tree frog (which can change color from mottled gray to bright green and back again)



and the odd looking narrowmouth toad, which is really a frog that lives under rocks and eats mostly ants.



Finally, the largest species of snake on KPBS that you could encounter is the bull (gopher) snake. This species can get up to 7 feet long and behave in a way that can be very intimidating. They are rattlesnake mimics, coiling up

and acting ready to strike while hissing in such a way that they sound like a rattlesnake. Unfortunately, many of these useful snakes are killed every year by people who believe them to be rattlesnakes.

Hopefully, this small taste of the KPBS herpetofauna will help you better appreciate these fascinating and beautiful animals. However, do keep in mind that reptiles have teeth and, like any wild animal, they will bite if you grab them. You can see photos of all the snakes and lizards from KPBS, and a few of the frogs, at <http://www.k-state.edu/herplab/education.htm>, and find more information about all the herps of Kansas at the Kansas Herpetofaunal Atlas <http://webcat.fhsu.edu/ksfauna/herps/>
photos by Eva Horne



SPRING PROGRAM

TOM BRAGG

SANDHILLS PRAIRIE

APRIL 19, 2009

2:00 P.M.

CORTELYOU LECTURE ROOM

Tom Bragg, a Professor of Biology at the University of Nebraska at Omaha, received an M.S. and Ph.D, under Dr. Lloyd Hulbert, from Kansas State University in 1974. His research focuses on native prairie of the central Great Plains of North America with specific interests in the natural occurrence of fire and its role in maintaining the plant diversity of native grasslands. Most of his research has been conducted in the Nebraska Sandhills, the Tallgrass Prairie of eastern Nebraska, the Loess Hills Prairie of eastern Iowa, or the Spinifex (*Triodia*) grasslands of Western Australia. Research in the Great Plains includes using dendrochronological methods to estimate historic fire frequency from fire-scarred trees.

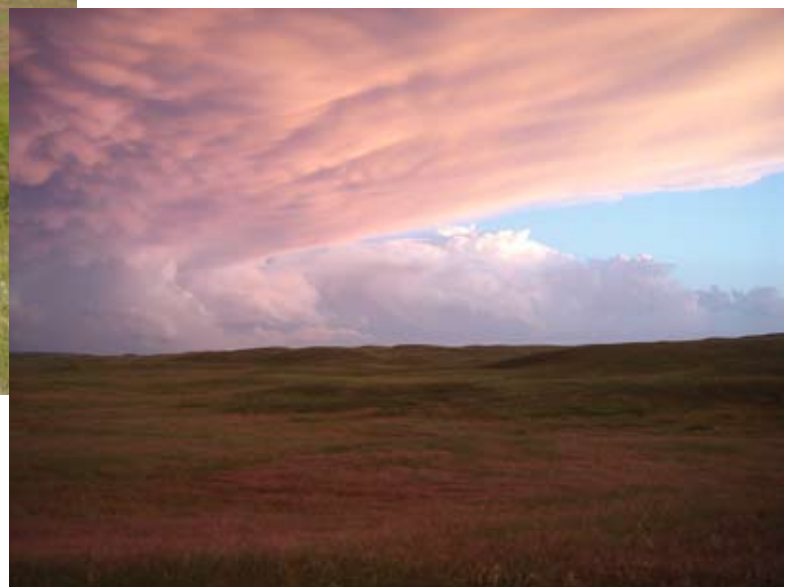
More than 40 students have completed Master's degrees under his supervision in subjects varying from forest to wetland and focusing on a variety of organisms varying from algae and vascular plants to invertebrates and small mammals. Teaching presently includes upper division courses in *Ecology* and *Fire Ecology* and graduate courses in *Communities and Ecosystems* and *Plant Ecology*.



Penstemon angustifolius
(Broad-beard Beardtongue)



Landscapes of the Nebraska Sandhills



Photos by Tom Bragg

CALLING ALL PHOTOGRAPHERS!



FOKP MEMBERS ARE INVITED TO SUBMIT THEIR KONZA PHOTOS FOR POSSIBLE INCLUSION IN OUR 2010 CALENDAR.

GUIDELINES:

1. Images must be taken on (or above!) Konza Prairie, and can include landscapes, flora, fauna, and activities at Konza (research, environmental education, etc.) We hope to receive images made at different seasons on Konza.
2. Images should be in LANDSCAPE format. The printed calendar will contain photos printed approximately 10 inches horizontal and 7 ½ inches vertical. (Portrait format photos may be considered for use on FOKP notecards.)
3. Up to 6 images may be submitted per photographer.
4. Submit images as JPEG OR TIFF format with highest available resolution. Images must be submitted on portable electronic media (cd, dvd, flash memory cards, portable harddrive, etc.). Photographers will be asked at time of submission to sign a release form (release to FOKP for submitted images use in the calendar, notecards or newsletter.)
5. Submit images to Clafin Books and Copies, Manhattan, KS, attention Will Latty.
6. Images can be submitted through June 30, 2009.
Selection of photos for the 2010 Calendar will be made during early July.

Gifts THAT GIVE TO THE KONZA PRAIRIE!



www.companycasuals.com/konzaprairie

NEW Notecards (Clafin Books & Copies) \$15 for set of 5

Friends of Konza Prairie is proud to offer a new outlet for Konza Prairie merchandise. FOKP teamed with N Zone Sportswear of Manhattan to create the Konza Prairie Webstore on-line. Through the Webstore, FOKP is able to offer a much wider selection of items to the public. Embroidered with your choice of Konza Prairie Logos, choose from men's, lady's and children's clothing or specialty items such as aprons and tote bags; outerwear including jackets, vests and pullovers; and much more! We encourage you to shop our Webstore and share this information with other Konza Prairie enthusiasts.



Select items are also available for sale at FOKP events, including this upcoming Spring Meeting on April 19th. Several new items will be available including plush baby bison toys, men's polo and dress shirts, tote bags, guide hats and visors, and screenprint t-shirts in new colors.



ON-LINE

GET YOUR BISON & BLUESTEM electronically - in **FULL COLOR**, you can request to receive this newsletter electronically as a **pdf file**, email me (cinraney@ksu.edu) and please put "FOKP" in the subject line.

Visit the the FOKP website for news about FOKP, KEEP and KPBS. Browse our calendar of events, find information about our hiking trails, or learn about our Presenter's Bureau.

KEEP website - <http://www.k-state.edu/fokp>

Friends of Konza Prairie (FOKP) is now registered on GoodSearch.com, a Yahoo! search engine that adds a penny donation for every search done through them. Just type "Konza Prairie" in the "Who do you GoodSearch for?" box and your subject in the search box. The more of us who use GoodSearch.com, the more funds for FOKP. Those pennies add up!

NEW MEMBERS

BY KAREN WELLS

Karen and John McCulloh, Manhattan
 John Wingfield, Manhattan
 Jan and Maureen Olewnik, Manhattan
 John and Mary Weigel, Lake Quivira, KS
 Sara T. Wagner, Manhattan
 Denis and Donna Callaghan, Lawrence, KS
 Edward Callaghan & Family, Iowa City, IA
 Marc N. Callaghan & Family, Portland, OR
 Nick Callaghan & Family, Lawrence, KS
 Marcia Good & Family, Fort Collins, CO
 Diane Barker, Manhattan
 Carla Bishop, Manhattan

Walter Dodds & Dolly Gudder, Manhattan
 Marguerite and Neal Fleming, Davis, CA
 Robert W. Conroy, M.D., Topeka, KS
 Anthony Joern & Linda Vescio, Olsburg, KS
 Bruce and Dawn Wayant, Topeka, KS
 M.J. Morgan, Manhattan
 Bill and Donna Schenck-Hamlin,
 Manhattan



KONZA HISTORY

The Konza Environmental Education Program(KEEP) updated its website to include more history of Konza Prairie Biological Station featuring the Dewey Ranch, Hokanson Homestead and the Education Program. The new section features articles written by Dr. Lloyd Hulbert and Charles Given, as well as historical photographs. **Go to:**
<http://www.k-state.edu/konza/keep/about/history.htm>

THE QUARTERLY NEWSLETTER OF THE FRIENDS OF KONZA PRAIRIE

Director John Briggs, Ph.D.	Administrative Asst. Barb Van Slyke	Environmental Educator (EE) Valerie Wright, Ph.D.
Assistant Director Eva Horne, Ph.D.	Shop Foreman Jim Larkins	Assistant EE Annie Baker
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: www.ksu.edu/konza/keep. Also, see the back of this issue for a membership form.

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Cut on dotted line and Give to a Friend

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Annual Membership (and Benefits):

\$ _____ **Little Bluestem \$30(Individual) \$50 (family) up to \$99**

Bison & Bluestem Newsletter, Fall Bison BBQ potluck,
Holiday Gathering, & Invitations to special speakers
and other events at the Konza Prairie

\$ _____ **Big Bluestem \$100-\$149**

Benefits of Little Bluestem level plus
Konza Prairie color print

\$ _____ **Flint Hills \$150-\$249**

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Small Konza Prairie Poster

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Annual Friends of Konza Prairie Calendar

Enclose this information with your tax-deductible check payable to
Friends of Konza Prairie and mail to:

**Friends of Konza Prairie
KSU, Div. of Biology, 116 Ackert Hall
Manhattan, KS 66506-4901**

Please list your name(s) as you would like it to appear on
our membership list:

Name: _____

Address: _____

Day Phone: (____) _____

Memberships make great gifts!

I want to give this membership as a gift to:

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Message:

THANK YOU!

We enjoy being able to publicly recognize and thank our
members for their support. However, if you do NOT wish
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