

## MINUTES OF THE HOUSE ENVIRONMENT COMMITTEE

The meeting was called to order by Chairperson Joann Freeborn at 3:30 p.m. on January 27, 2004 in Room 231-N of the Capitol.

All members were present except:

Representative John Faber- excused  
Representative Larry Powell- excused

Committee staff present:

Emalene Correll Legislative Research Department  
Raney Gilliland Legislative Research Department  
Mary Torrence, Revisor of Statutes  
Mary Ann Graham, Committee Secretary

Conferees appearing before the committee: Representative Tom Sloan, 45<sup>th</sup> District  
Ed Martinko, State Biologist & Director, Kansas Biological Survey, 2101 Constant Avenue, Higuchi Hall, University of Kansas, Lawrence, KS 66047  
Dr. Mark Jakubauskas, Assistant Research Professor, Kansas Biological Survey, 2101 Constant Avenue, 116 Higuchi Hall, University of Kansas, Lawrence, KS 66047

Others attending:

See Attached List.

Chairperson Joann Freeborn called the meeting to order. She introduced Rep. Oletha Faust-Goudeau, committee member replacement for Rep. Donald Betts, that was appointed to the Senate. She asked each committee member and staff members to introduce themselves and give a brief background history. Rep. Sharon Schwartz introduced her intern, Laura Dague from Kansas University; Rep. Lee Tafanelli introduced his intern, Branden Hall from Kansas State University; and Rep. Vaughn Flora introduced his intern, Laura Wood from Kansas State University.

The Chairperson welcomed Dr. Mark Jakubauskas, Kansas Biological Survey, to the committee. He gave a review on Mountain Lion existence in Kansas. The Kansas Biological Survey is a research and service unit of the University of Kansas, and a non-regulatory agency of the state. As such, the Biological Survey strives to provide accurate and objective information to decision-makers based on solid scientific research. Federal and state agencies, private industry, nonprofit organizations, and the general public routinely consult their scientists for unbiased information and advice concerning a wide range of environmental and biological issues.

The last official sighting of a wild cougar in Kansas was in 1904, in Ellis County. Wild cougars have been documented in every state surrounding Kansas in the past ten years. Numerous citizens have reported seeing cougars in Kansas for years and the Biological Survey has scientific proof that a cougar was on the KU West Campus in October 2003. Wild cougars, as opposed to merely escaped or released pet cougars, have been scientifically documented in every single state surrounding Kansas, including a cougar captured in downtown Omaha, Nebraska last fall, and a cougar struck and killed a year ago by a motorist on I-435 in Missouri just south of the Kansas City airport. For years, citizens across the state have reported seeing cougars, and this included at least two dozen sightings in Lawrence and Douglas County in the past several years. There have been nine reported sightings of a possible cougar on KU's West Campus alone, most recently a sighting of a pair of possible cougars just a month ago. In nearly every instance, there is no "hard evidence", a good picture, an animal dropping, or the animal itself, as proof. But the Biological Survey does have some proof. Last September, following reports of cougar sightings in the area, a motion detection wildlife camera was placed on KU's West Campus. This picture of an animal was taken by the camera on October 1. Some wildlife biologists have identified the animal in the picture as a cougar, while other biologists interpret it as a fox. Scientists often disagree about inconclusive evidence. A fresh animal dropping, an animal "scat", was sent to a laboratory in Michigan that specializes in identifying animals from their droppings using DNA analysis. They extracted DNA from the scat sample, and

CONTINUATION SHEET

MINUTES OF THE HOUSE ENVIRONMENT COMMITTEE at 3:30 p.m. on January 27, 2004 in Room 231-N of the Capitol.

compared it to known samples for cougar, wolf, dog, coyote, and bobcat. They determined that the animal scat collected on West Campus was from a cougar. This the first scientific proof of a free-range cougar in Kansas in one hundred years. If indeed the KU cougar has taken up residence on campus, or has made Lawrence and Douglas County part of its normal range, it seems incumbent to find out more about this animal and determine an appropriate course of action, rather than just regard it as an isolated incident. Dr. Jakubauskas had photographs and a laboratory report for the committee to review. (See attachment 1) Committee questions and discussion followed.

Chairperson Freeborn thanked Dr Jakubauskas for his presentation and welcomed staff members from the Department of Wildlife and Parks, Chris Tymeson, Chief Legal Counsel; Kevin Jones, Director, Law Enforcement Division; Matt Peek, Furbearer Research; and Charlie Lee, Kansas State Research and Extension, for a follow-up response to the existence of mountain lions in Kansas. The Department does not have scientific evidence of cougar reproduction in Kansas at this time. There have been 104 permits issued in the state for individual ownership of cougars and four permits for the resale of them. The Department usually takes several calls a year concerning mountain lions. If the call involves livestock they go out immediately, if it is just a sighting they only take information from the call. There are state laws in place which allows property owners to protect their property from wildlife, which includes cougars. Committee questions and discussion followed.

The Chairperson thanked the Department of Wildlife and Parks and Mr. Charlie Lee for their response. She opened the hearing on **HB2480**.

**HB2480: Membership of the Kansas Water Authority.**

Raney Gilliland, Department of Legislative Research, explained the bill.

Chairperson Freeborn recognized Rep. Tom Sloan. He testified in support of the bill. He found it interesting that the Biological Survey has data and data collecting/analysis capabilities that the Water Office needs; but that the interactions between the two agencies was limited by the absence of a forum at which the agency heads can identify common goals and share resources. Therefore, to stimulate the sharing of data on water quality issues for the purpose of developing better public policy recommendations, he believes that the State Biologist should be added as an ex-officio member to the Kansas Water Authority. He believes that this is particularly important because the Biological Survey is the only state agency whose primary responsibility is water that is currently excluded from the Authority. (See attachment 2)

The Chairperson welcomed Ed Martinko, Kansas Biological Survey, to the committee. He testified in support of the bill. He believes this bill would allow the Kansas Water Authority to draw upon the knowledge and expertise of the Kansas Biological Survey about water and other natural resources, thereby enhancing the Authority's ability to make wise and informed decisions about management of Kansas water resources. This bill proposes amending the membership of the Water Authority by adding the State Biologist as a non-voting member. The bill makes no other changes in the membership of Authority or its duties and responsibilities. Therefore, he supports the bill and, if the committee and the legislature accept this amending legislation, would gladly serve on the Authority in a non-voting capacity. (See attachment 3) Committee questions and discussion followed.

Chairperson Freeborn closed the hearing on **HB2480**. She reviewed the committee agenda for Thursday, January 29, committee bill requests and an Update on Well plugging and Remediation Activities by the Kansas Corporation Commission.

The meeting adjourned at 4:25 p.m. The next meeting is scheduled for Tuesday, February 5, 2004.



**Comments to:**

**House Environment Committee**

**Regarding mountain lions in the State of Kansas**

**Submitted by the Kansas Biological Survey**

**January 27, 2004**

Representative Freeborn, members of the committee, my name is Mark Jakubauskas. I am an Assistant Research Professor in the Kansas Biological Survey, and I would like to thank you for the opportunity to speak before the committee.

As background, the Kansas Biological Survey is a research and service unit of the University of Kansas, and a non-regulatory agency of the state. As such, the Biological Survey strives to provide accurate and objective information to decision-makers based on solid scientific research. Federal and state agencies, private industry, nonprofit organizations, and the general public routinely consult our scientists for unbiased information and advice concerning a wide range of environmental and biological issues.

Let me state for the record that I am not an animal biologist. My professional training and experience principally deal with analyzing geospatial data, often for the purposes of mapping or predicting wildlife habitat. It has been my privilege over the years to work with a talented group of biologists. The information I relate to you today is therefore either scientific evidence, or the experiences of other persons and states in regard to cougars.

What do we know about mountain lions, or cougars, in Kansas? The facts are simple:

- The last official sighting of a wild cougar in Kansas was in 1904, in Ellis County;
- Wild cougars have been documented in every state surrounding Kansas in the past ten years;
- Numerous citizens have reported seeing cougars in Kansas for years;
- We have scientific proof that a cougar was on the KU West Campus in October 2003.

Wild cougars - as opposed to merely escaped or released pet cougars - have been scientifically documented in every single state surrounding Kansas, including a cougar captured in downtown Omaha, Nebraska last fall, and a cougar struck and killed a year ago by a motorist on I-435 in Missouri just south of the Kansas City airport. For years, citizens across our state have reported seeing cougars, and this includes at least two dozen sightings in Lawrence and Douglas County in the past several years. There have been nine reported sightings of a possible cougar on KU's West Campus alone, most recently a sighting of a pair of possible cougars just a month ago. I say "possible," since in nearly every instance, we have no "hard evidence" - a good picture, an animal dropping, or the animal itself - as proof.

But we do have some proof. Last September, following reports of cougar sightings in the area, I placed a motion detection wildlife camera on KU's West Campus. This picture of an animal was taken by the camera on October 1. Some wildlife biologists have identified the animal in the picture as a cougar, while other biologists interpret it as fox. That's OK - scientists often disagree about inconclusive evidence, and such disagreements challenge us to find better proof.

*House Environment  
1-27-04  
Attachment 1*

About a week after this picture was taken, myself and a colleague from the Biological Survey were in the immediate vicinity - a hundred feet or so - of where the animal was photographed, and we collected a fresh animal dropping, an animal "scat." This scat sample was sent to a laboratory in Michigan that specializes in identifying animals from their droppings using DNA analysis. They extracted DNA from the scat sample, and compared it to known samples for cougar, wolf, dog, coyote, and bobcat. They determined that the animal scat collected on West Campus was from a cougar. This is the first scientific proof of a free-range cougar in Kansas in one hundred years.

The cougar droppings found on the KU campus prove beyond a doubt that at some point last fall, a cougar - regardless of whether it was a wild animal or a former pet - was indeed ranging free on the KU campus, in the heart of a city of 80,000 people. Further analysis of the DNA sample can tell us whether the cat is of the North American or South American genotype (which may indicate whether it is a wild animal or a former pet); the gender of the cat; and what the animal has been eating. What we do *not* know is whether this cougar was just passing through, or is residing on campus; it does not tell us if it was an isolated individual, or part of a larger population of cougars taking up residence in the state. Given that wild cougars have been documented in every single state surrounding Kansas, I find it difficult to believe that they recognize political boundaries such as the Kansas state line; more likely, they follow natural travel corridors regardless of our intentions.

Cougar populations across the US have been increasing since the 1960's, largely due to increased legal protection, and expanded prey populations (primarily deer and elk). These animals have learned to live around people without being detected. We can debate whether there are wild cougars in Kansas at the present. It would be foolish, however, to pre-suppose that wild cougars will never be in Kansas, and will never interact with our citizens, given that wild cougars have been found in every single state surrounding us. Populations of cougars once thrived in Kansas, and it is not unreasonable to expect that when prey are plentiful and cover appropriate, these animals could be expected to return to a region where they once occurred.

What will be our response as a state to wild cougars in Kansas? Will we take a pro-active approach, recognizing and planning for the eventuality that these animals will ultimately re-occupy yet another portion of their historic range? Or will we take a reactive approach of avoiding the situation, an attitude that has not met with success in any state that has had to deal with wild animals re-occupying former ranges. It seems to me as a scientist that a more prudent course of action is to take a proactive rather than reactive approach. Experiences in many other states have shown that humans can co-exist with large predators - wolves, bears, and even cougars - but that problems arise when any animal becomes habituated to humans. In other words, an animal loses its fear of people, and instead begins to see them as a source of food - or as food itself. Habituation causes problems for any wild animal, whether it be chipmunks in our national parks, or cougars in our cities.

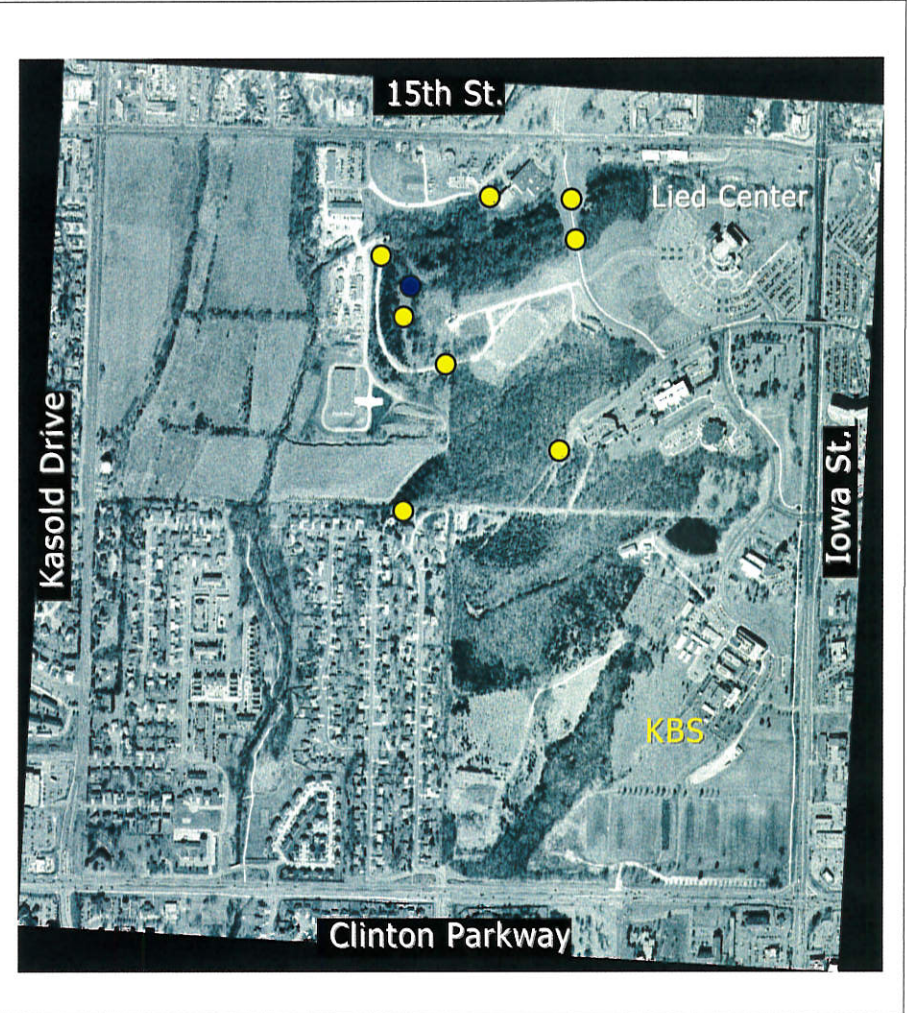
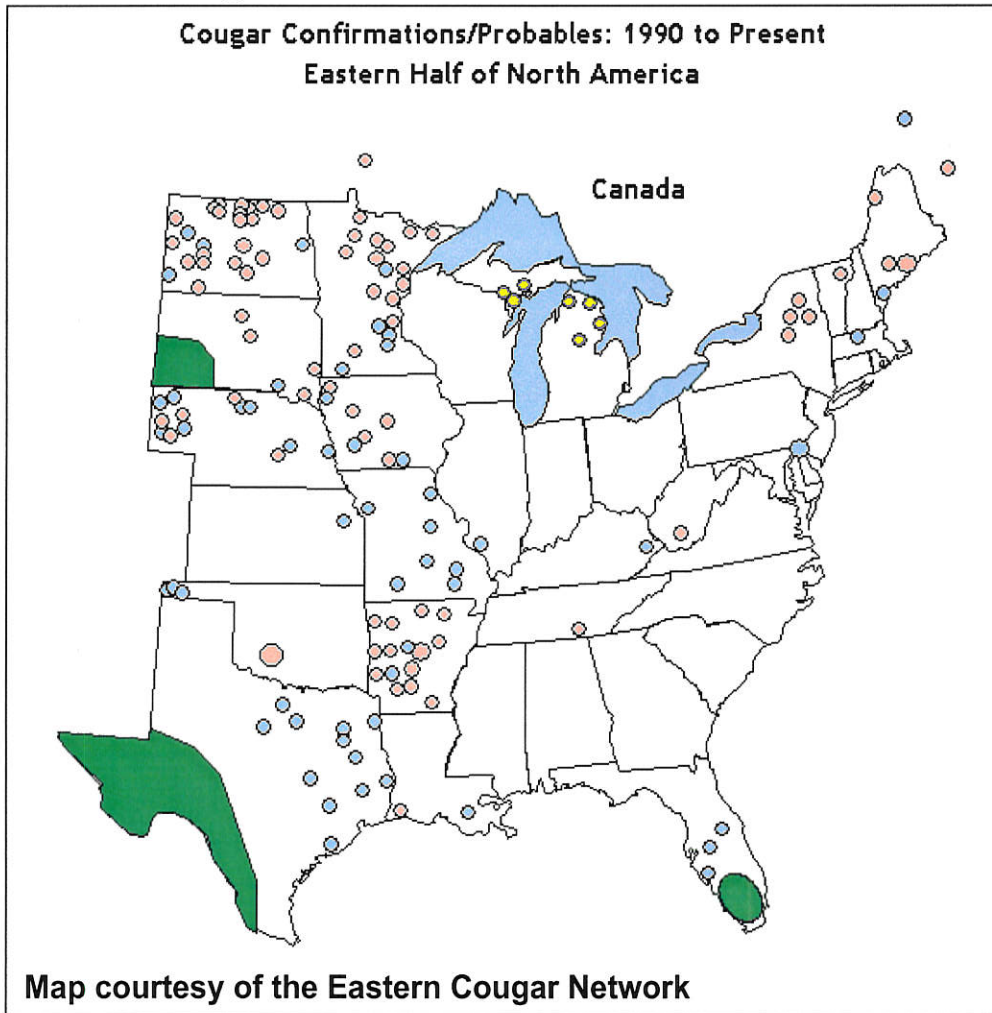
If indeed the KU cougar has taken up residence on campus, or has made Lawrence and Douglas County part of its normal range, it seems incumbent on us to find out more about this animal and determine an appropriate course of action, rather than just regard it as an isolated incident.

I would like to thank the committee for the opportunity to provide this information, and it would be my pleasure to answer any questions you may have.

# Cougar Sightings

Documented and probable sightings of cougars around Kansas.

Documented and possible sightings of cougars around KU West Campus.



- Confirmed cougars
- Probable cougars
- Reported sightings

# The "KU West Campus Cougar"



Original photo, taken October 1, 2003:



Comparison photo:

This photo was taken from exactly the same position and camera as the photo to the left. The deer is in nearly the same location in the grass as the unknown animal. Compare the size of the unknown animal to the deer.



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**Submitter:** Dr. Mark Jakubauskas

**Examiner:** Brad Swanson Ph.D

**Agency:**

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**Purpose:** Scat based species identification

**Date:** 12/6/2003

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**Samples Received:** One (1) scat sample

**Examinations Conducted:**

DNA extraction of the scat sample was performed using a Qiagen stool kit. Extraction was performed in a fume hood thoroughly cleaned with "DNA Off" to remove any residual DNA contamination. The samples were handled with cleaned and sterilized Eppendorf pipettes. Different pipettes were used for all of the comparative samples and performed in a different cubicle. Four (4) samples were removed from different regions of the scat and extracted independently. Each sample was amplified up for a region of the d-loop using primers described in Foran et al. (1997). PCR amplification was performed using fluorescently labeled dCTP and fluorescently labeled primers. Samples were cleaned using Qiagen's QIAquick PCR Purification Kit. The PCR products were used in a restriction digest with RSA-1 as described in Foran et al. (1997). Comparative samples from know dog (*Canis domesticus*), coyote (*Canis latrans*), wolf (*Canis lupus*), bobcat (*Felis rufus*), and cougar (*Felis concolor*) were amplified and restricted concurrently with the unknown sample.

Restriction digest products were visualized on an ABI 310 automated DNA sequencer with TAMARA 500 size standard

**Results:**

The PCR product exhibits different sizes for canids and felids. The product length matched felid DNA and not canid DNA.

The PCR product was then restricted along with DNA known samples of cougars, bobcats, dogs, coyotes, and wolves. The restriction digest produced a banding pattern consistent only with cougars for the number of bands and size of bands.

**Discussion:** The scat sample only matches a cougar.

**Literature Cited:**

Foran, D.R., K.R. Crooks and S. Minta. 1997. Species identification from scat: an unambiguous genetic method. Wildlife Society Bulletin 25:835-839.



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STATE OF KANSAS



TOPEKA

HOUSE OF  
REPRESENTATIVES

COMMITTEE ASSIGNMENT  
CHAIRMAN: HIGHER EDUCATION  
MEMBER: UTILITIES  
ENVIRONMENT  
GENERAL GOVERNMENT &  
HUMAN RESOURCES  
BUDGET

## Testimony on HB 2480

Madam Chairman, Members of the Committee: HB 2480 adds two words and a comma to existing state law. It proposes to add the State Biologist (head of the Kansas Biological Survey) to the Kansas Water Authority (KWA).

Last summer the Speaker named me as his representative to the Kansas Water Authority. During the succeeding six months, it became apparent to me that the KWA is more than the body that recommends changes in water policies to the Governor and Legislature, and is more than the repository to which Basin Advisory Councils send their recommendations. It is a place in which state water agency heads share ideas, data, and cooperatively develop ideas forwarded through the Governor's Natural Resources Sub-Cabinet.

Because of my interest in several water policy issues related to lake sedimentation and water quality, I facilitated several meetings at which the State Biologist and Director of the Kansas Water Office were present. I found it interesting that the Biological Survey has data and data collecting/analysis capabilities that the Water Office needs; but that the interactions between the two agencies was limited by the absence of a forum at which the agency heads can identify common goals and share resources.

Therefore, to stimulate the sharing of data on water quality issues for the purpose of developing better public policy recommendations, I believe that the State Biologist should be added as an ex-officio member to the Kansas Water Authority. I believe that this is particularly important because the Biological Survey is the only state agency whose primary responsibility is water that is currently excluded from the Authority.

Other conferees can provide more specific examples of the benefits that will accrue to public policy development by passage of HB 2480, but I will be pleased to respond to Committee members' questions.

*House Environment  
1-27-04  
Attachment 2*

Comments To:  
House Environment Committee  
Regarding HB 2480  
Submitted by: Kansas Biological Survey  
January 27, 2004

Representative Freeborn, members of the Committee, my name is Ed Martinko. I am the State Biologist and Director of the Kansas Biological Survey and I would like to thank you for the opportunity to speak before the committee.

The Kansas Biological Survey (KBS) is a research and service unit of the University of Kansas and a non-regulatory agency of the State. Over the last 100-plus years of cataloging and studying the plants, animals and natural communities of Kansas, we have learned much about the State's natural biological resources; not only where things are found but also how the flora, fauna, and ecology of the State have changed over time. We have had an active water research program for over 40 years and have conducted studies in streams, State and Federal reservoirs, wetlands, and at the experimental pond facility located at the University of Kansas Field Station and Ecological Reserves. The Kansas Applied Remote Sensing Program of the Survey has extensive expertise in use of remote sensing technology to map and analyze natural resource information. We have worked with all the State's water and natural resource agencies at one time or another and we strive to provide accurate and objective information to decision-makers based on solid scientific research.

I provided testimony about the Biological Survey to the Kansas Natural Resource Legacy Alliance during one of their early meetings, and have followed the Alliance's progress as the members traveled the State learning about the breadth of issues related to the conservation of the State's natural resources. The issues and recommendations presented by the Alliance in their December 2003 report to Governor Sebelius and the legislature clearly point out that our natural resource conservation efforts need to be broader than they have been in the past.

HB 2480 will allow the Kansas Water Authority to draw upon the knowledge and expertise of the Kansas Biological Survey about water and other natural resources, thereby enhancing the Authority's ability to make wise and informed decisions about management of Kansas water resources. This Bill proposes amending the membership of the Water Authority by adding the State Biologist as a non-voting member. The Bill makes no other changes in the membership of Authority or its duties and responsibilities. Therefore, I support HB 2480 and, if this committee and the legislature accept this amending legislation, I would gladly serve on the Authority in a non-voting capacity.

Again, I would like to thank you for the opportunity to speak to the committee, and it would be my pleasure to answer any questions that you may have.

*House Environment  
1-27-04  
Attachment 3*