

KANSAS HERPETOLOGICAL SOCIETY



NEWSLETTER No. 119

MARCH 2000



ANNOUNCEMENTS

NEW BOOK ON COLORADO AMPHIBIANS, TURTLES & REPTILES

Amphibians and Reptiles in Colorado, Second Edition, is an up-to-date, definitive summary of the distribution, conservation status, habitat, behavior, life history, ecology, and taxonomy of all salamanders, frogs, turtles, lizards, and snakes known to inhabit Colorado. It replaces the first edition (1982), and includes a description of the Colorado landscape, color photographs of each species, range maps, identification keys, and tips on how to find, study, and photograph amphibians, turtles and reptiles. In addition, the author addresses the impact of human behavior on the region's herpetofauna, as well as the impact of Colorado's amphibians and reptiles upon humans.

Covering the western part of the central Great Plains, the southern Rocky Mountains, and the canyons, mesas, and plains of the upper Colorado River basin, *Amphibians and Reptiles in Colorado* will be a useful resource for adjacent states such as Wyoming and eastern Utah. With more than 200 color photographs to aid the reader in identification, this book is both an ideal reference work for those interested in the herpetofauna of the region and an invaluable field guide for hikers, naturalists, and outdoor enthusiasts.

The 480-page book, released last November, was written by Geoffrey A. Hammerson, a research zoologist for *The Nature Conservancy*, who has studied amphibians and reptiles in Colorado since 1977.

Available from the University Press of Colorado, Boulder. Hardcover \$59.95 ISBN 0870815210; Paperback \$29.95 ISBN 0870815342.

ARKANSAS HERPETOLOGIST POSITION AVAILABLE

The Arkansas Wildlife & Fisheries Management Division is advertising for a state herpetologist, as follows:

Minimum Qualifications: A formal education equivalent of a Bachelor's Degree in biology, zoology, or related field, plus three years experience in terrestrial and/or aquatic

resource management or related field including one year in a leadership capacity. Other job related education including a Master's Degree and/or experience may be substituted for all or part of these basic requirements upon approval of the Qualifications Review Committee.

Duties: Applicant will work under supervision and responsibilities will include: coordinating agency conservation activities for all reptiles and amphibians statewide; developing long-range strategic and operational plans and establishing program priorities; gathering baseline data on the distribution, abundance and trends of Arkansas reptiles and amphibians; planning and implementing management activities to conserve and enhance species of concern; developing monitoring programs to track priority species and evaluate effects of management activities; planning, conducting and overseeing contractual research and monitoring for priority species statewide; reviewing and updating agency regulations as needed to protect priority species from exploitation; coordinating Commercial Nongame Breeder and associated permits programs along with the Alligator Farming Program and its permits; reviewing, editing and approving all related program draft reports and manuscripts submitted for publication; participating in special events, preparing news releases, magazine articles, slide presentations and interpretive information for public understanding; and performing other duties as deemed necessary.

Knowledge, abilities and skills desired: Knowledge concerning state and federal laws, regulations and guidelines applicable to reptiles and amphibians in Arkansas; Knowledgeable and proficient in various computer software programs. Knowledge of game and fish laboratory and field survey equipment, techniques and procedures. Ability to make administrative and supervisory decisions in a wide range of management areas including budgeting, personnel, and procurement:

Human Resources Division
2 Natural Resources Drive
Little Rock, Arkansas 72205
Phone: (501) 223-6443
email address: jldavis@agfc.state.ar.us

KHS BUSINESS

KHS SPRING 2000 FIELD TRIP TO FLINT HILLS TALLGRASS PRAIRIE PRESERVE IN BUTLER COUNTY

The spring KHS field trip will be the weekend of 28-30 April 2000. The base camp will be at the *Box Turtle Point* area of the *Bluestem* area at *El Dorado State Lake*. Signs will be up by early evening on Friday, 28 April 2000 to help KHS members and their friends find the camping area. It is northeast of the main office, and has modern toilets, a showerhouse, water and electricity. Close by is the *Flint Hills Tallgrass Prairie Preserve*, a recent acquisition by the *Kansas Chapter of The Nature Conservancy*, which displays a great diversity of amphibians, turtles, and reptiles. Two days of amphibian, turtle and reptile counts on the FHTPP will officially be held on both Saturday, 29 April and Sunday, 30 April. Participants should meet at the (only) restaurant in downtown Cassoday at 9:00 am sharp. Counts will continue until 5:00 pm. Be sure and pack a lunch.

Two different two-way radio frequencies will be monitored to help those with either the old CB's (Citizen Band) or the newer and much quieter FRS (Family Radio Service) radios that many people are now using on field trips. CB channel 40 will be monitored on the CB band, and FRS channel 4 will be monitored on the FRS band. Channel 40 CB is not the channel that the KHS has been monitoring on past field trips. However, it appears to be much quieter most of the time. Also, channel 4 FRS matches with channel 4 on several of the much more powerful GMRS (General Mobil Radio Service) radios for those that have a license for those radios. Both FRS and GMRS are becoming quite popular, so some of you may already have such radios.

Any questions about this KHS field trip should be directed to Larry Miller. Enquiries may be in the form of email, a telephone call, or U.S. mail.

NOTE: I will not be at my home phone number or e-mail after 26 April 2000 since I will be traveling with students doing herp counts before the KHS field trip begins. Thus, those of you that wish to call or e-mail me MUST do so before the evening of the 26th if they want an answer before the field trip. Check out the KHS web site (URL inside the front cover) for the latest information, maps, and links.

Larry L. Miller
Kansas Heritage Photography
840 SW 97th Street
Wakarusa, Kansas 66546
Telephone 785-836-2119
Email: wakarusa@cjnetworks.com

CANDIDATES FOR THE COLLINS AWARD IN 2000

Papers published and talks presented that are eligible for the *Suzanne L. & Joseph T. Collins Award for Excellence in Kansas Herpetology* are listed below. Papers must have been published in the *KHS Newsletter*, *Transactions of the Kansas Academy of Sciences*, *Herpetological Review*, or the *Journal of Herpetology* during the years 1998 and 1999, and talks must have been presented as a lecture at the annual meetings of the Kansas Herpetological Society during November 1998 or November 1999. The candidates (if they are current KHS members) for 1998 and 1999 are:

1998

- Busby, William. 1998. The Crawfish Frog (*Rana areolata*) in Kansas. *Title only*. 25th Annual Meeting Kansas Herpetol. Soc., Lawrence.
- Cink, Calvin. 1998. Snakes of the Baker Wetlands, Douglas County, Kansas. *Title only*. 25th Annual Meeting Kansas Herpetol. Soc., Lawrence.
- Gerlanc, Nicole. 1998. Ephemeral Aquatic Habitats in Tallgrass Prairie: Abiotic Changes over Time and their Effects on Developmental Rates of Western Chorus Frogs. *Title only*. 25th Annual Meeting Kansas Herpetol. Soc., Lawrence.
- Gerlanc, Nicole, Ray S. Matlack, Glennis A. Kaufman & Jack F. Cully, Jr. 1998. Progress on the Amphibian and Reptile Layers in Kansas. *Abstract*. 25th Annual Meeting Kansas Herpetol. Soc., Lawrence.
- Moriarty, Emily C. 1998. A Morphometric and Molecular Comparison of *Pseudacris triseriata* and *Pseudacris maculata* from Sympatric Populations in Douglas County, Kansas. *Abstract*. 25th Annual Meeting Kansas Herpetol. Soc., Lawrence.
- Parmelee, Jeffrey R. 1998. Feeding Ecology of Kansas Anurans: Our State of Knowledge and some Predictions. *Title only*. 25th Annual Meeting Kansas Herpetol. Soc., Lawrence.
- Platt, Dwight R. 1998. Population Trends in the Assemblage of Snakes on Sand Prairies in Western Harvey County, Kansas, Over a 40-Year Period. *Abstract*. 25th Annual Meeting Kansas Herpetol. Soc., Lawrence.
- Riedle, Daren 1998. Winter Snake Activity. *Kansas Herpetol. Soc. Newsl.* 111: 16.
- Riedle, Daren 1998. Water Snake Feeding Records. *Kansas Herpetol. Soc. Newsl.* 111: 16.
- Rundquist, Eric M. 1998. A Walk in Beauty: Observations of a Kansas Herpetologist. *Title only*. 25th Annual Meeting Kansas Herpetol. Soc., Lawrence.

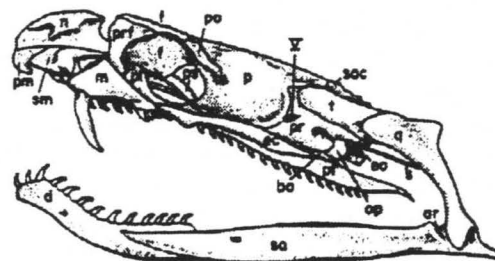
- Rundquist, Eric M. 1998. Winter Snake Activity. *Kansas Herpetol. Soc. Newsl.* 111: 16.
- Rundquist, Eric M. 1998. Blind Snake Reproductive Activity. *Kansas Herpetol. Soc. Newsl.* 111: 16–17.
- Rundquist, Eric M. 1998. Results of the Tenth Annual KHS Herp Counts for 1998, Held 1 April–31 May. *Kansas Herpetol. Soc. Newsl.* 112: 11–18.
- Rundquist, Eric M. 1998. Racer Reproduction and Diet Observation. *Kansas Herpetol. Soc. Newsl.* 113: 15.
- Volkman, Allan. 1998. A Flint Hills Herpetological Survey in Cowley county, Kansas, Assessing a Decade (1989 to 1998). *Title only.* 25th Annual Meeting Kansas Herpetol. Soc., Lawrence.

1999

- Capron, Martin B. 1999. A Case of Predation by Bald Eagles on Spiny Softshells in Kansas. *Kansas Herpetol. Soc. Newsl.* 117: 15.
- Doggett, M. Steven. 1999. Monitoring Chytridiomycosis in Kansas Amphibian Populations. Abstract. 26th Annual Meeting Kansas Herpetol. Soc., Pratt.
- Farley, Greg H. 1999. Geographic Distribution: *Storeria dekayi*. *Herpetol. Rev.* 30(2): 114.
- Hammerson, Geoffrey A. & Lauren J. Livo. 1999. Conservation Status of the Northern Cricket Frog (*Acris crepitans*) in Colorado and Adjacent Areas at the Northwestern Extent of the Range. *Herpetol. Rev.* 30(2): 78–80.
- Jeffrey, Jay D. and Matt R. Whiles. 1999. Effects of the PGA-class Colbert Hills Golf Course Construction on Prairie Amphibians. Abstract. 26th Annual Meeting Kansas Herpetol. Soc., Pratt.
- Lardie, Richard L. 1999. The Subspecific Status and Western Distribution of the Eastern Rat Snake, *Elaphe obsoleta*, in Oklahoma. *Kansas Herpetol. Soc. Newsl.* 115: 16–17.
- Rundquist, Eric M. 1999. A Walk in Beauty: Observations of a Kansas Herpetologist. *Title only.* 26th Annual Meeting Kansas Herpetol. Soc., Pratt.
- Rundquist, Eric M. 1999. Kansas Herpetological Society Herp Counts: A 10-Year Summary and Evaluation. *Kansas Herpetol. Soc. Newsl.* 115: 8–15.
- Rundquist, Eric M. 1999. Garter Snake Hybridization. *Kansas Herpetol. Soc. Newsl.* 118: 15.
- Schmidt, Curtis. 1998. Herpetological Observations at Cheyenne Bottoms, Barton County, Kansas. *Kansas Herpetol. Soc. Newsl.* 113: 15.
- Sparks, Dale W., Andrew G. Burr, M. Neil Bass, and Gregory A. Liggett. 1999. New County Distribution Records of Amphibians and Reptiles from Southwestern Kansas. *Herpetol. Rev.* 30(2): 120–121.

Any errors or omissions to the above list should be brought to the attention of the KHS Newsletter Editor. KHS President Robert Powell is in the process of appointing a formal, standing KHS Award Committee, which will administer the *Suzanne L. & Joseph T. Collins Award for Excellence in Kansas Herpetology*, the *Howard Kay Gloyd-Edward Harrison Taylor Scholarship*, the *Alan H. Kamb Endowed Grant for Research on Kansas Snakes*, and the *Bronze Salamander Award*.

Note: The *Suzanne L. & Joseph T. Collins Award for Excellence in Kansas Herpetology* for photography will be given during competition at the 28th annual meeting of the KHS in 2001 at Wakarusa, Kansas.



GET READY FOR KHS SPRING 2000 AMPHIBIAN, TURTLE & REPTILE COUNTS

The KHS herp counts will be conducted during April and May 2000. Volunteer participants conduct counts statewide during those two months only, and should mail or email their completed counts no later than 30 June 2000 to:

Eric M. Rundquist
Animal Care Unit
University of Kansas
Lawrence, Kansas 66045
trattler@kubub.cc.ukans.edu

Copies of the most recent version of the Kansas Amphibian, Turtle & Reptile Checklist can be accessed, downloaded and printed by going to the KHS web site (see the inside and outside back cover of this KHS Newsletter). A printed copy of the checklist can be obtained by sending a self-addressed, stamped (33-cent stamp) envelope to:

Kansas Herpetological Society
Kansas Biological Survey
2041 Constant Avenue
Lawrence, Kansas 66047

Results of the counts will be published in the September 2000 issue of the KHS Newsletter; counts not received by the 30 June deadline will not be published.

KHS BRINGS YOU NEWS OF THE WORLD

LANDMARK CONSERVATION FUNDING BILL GARNERS 294 CO-SPONSORS

Washington, D. C.—(17 February 2000). House Republicans and Democrats joined hands this past week to cosponsor a bill that has been hailed as the most far-reaching conservation funding legislation ever brought before Congress. The bipartisan legislation, known as the Conservation and Reinvestment Act of 1999 (CARA, HR 701), was officially reported out of the House Resources Committee yesterday with a final list of 294 cosponsors, more than two-thirds of the House. This is the first major piece of conservation legislation to gain such broad bipartisan support in over five years.

"This overwhelming show of support is a mandate for Congress to pass this critical conservation funding bill in 2000," said R. Max Peterson, executive vice president of the International Association of Fish and Wildlife Agencies (IAFWA), "We encourage the House leadership to schedule a vote as soon as possible. This legislation is truly a win-win for everyone!"

The landmark legislation would provide conservation with the largest infusion of federal funds in history, \$44 billion over the next 15 years (\$3 billion annually), most of which will go to various state and local conservation programs, including state-level wildlife conservation and related education and recreation.

"This bill will help restore imperiled species, conserve wild places, maintain recreational access and educate kids about the wonders of our natural world," said David Waller, IAFWA President and Director of the Georgia Division of Wildlife Resources, "At the same time it will save millions of dollars in remedial efforts and reduce the need for government regulations."

Currently, due to lack of funding, over 85 percent of America's fish and wildlife have gone unattended, leading to the continuous march of species toward the Endangered Species List. According to an IAFWA survey, it will take \$1 billion per year to fully restore our nation's wildlife. The \$350 million provided in Title III of HR 701 would go a long way toward funding a proactive approach to wildlife conservation aimed at preventing species from becoming endangered.

HR 701 has gained the support of the majority of our nation's governors, county commissioners and mayors along with a broad-based coalition of wildlife conservation, environmental, athletic and historic preservation groups and private businesses. Hundreds of wildlife conservation leaders from across the country will be heading to Washington, DC on March 1st for the *Wildlife Calls* ...

Will You Answer? summit where they will join forces with parks supporters in a "Wildlife and Parks" Rally on the steps of the US Capitol with master of ceremonies two-time Olympic gold medal winner Donna de Varona.

"With passage of this legislation on the horizon, there has never been a greater opportunity for this nation to make a difference in conservation. It is time for this generation to shape our legacy for the next century. When wildlife

calls, who will answer?" added Pat Graham, vice president of IAFWA and director of the Montana Department of Fish, Wildlife and Parks.

Last November, the bill was voted out of the House Resources Committee by a significant margin of 37-12. It was the product of several months of negotiations between Chairman Don Young and Ranking Democrat George Miller (D-CA).

HR 701 would reinvest \$3 billion annually in federal Outer Continental Shelf oil and gas revenue back into natural resources conservation through the following programs:

\$1 billion State Coastal Impact Assistance and Conservation (Title I)

\$900 million Land and Water Conservation Fund (LWCF) Revitalization (state formula and federal) (Title II)

\$350 million State-Level Wildlife Conservation and Restoration Fund (Title III)

\$125 million Urban Park and Recreation Recovery (UPARR) (state grants) (Title IV)

\$100 million Historic Preservation Fund (state grants and federal) (Title V)

\$200 million Federal and Indian Lands Restoration (Title VI)

\$150 million Conservation Easements & Species Recovery (federal) (Title VII)

\$200 million Payment In-Lieu of Taxes (PILT) and Refuge Revenue Sharing

The International Association of Fish and Wildlife Agencies, founded in 1902, is a quasi-governmental organization serving all 50 state fish and wildlife agencies in the protection and management of North America's fish and wildlife.

For additional information on HR 701 including a state-by-state breakdown of funding available under the legislation's eight program areas, visit www.teaming.com or www.house.gov/resources/ocs or contact IAFWA at (202) 624-7890 or teaming@sso.org. To receive IAFWA news releases online, email teaming@sso.org, type 'Get News Online' in the subject line and include your name and news affiliation.

Submitted by Curtis Schmidt, Hays, Kansas.

[*Editor's Note:* Teaming with Wildlife (TWW) is a national campaign to prevent species from becoming endangered and to nurture a new generation of wildlife stewards by securing funding for state-level nongame wildlife conservation and related education and recreation programs. A coalition of over 3,000 organizations and businesses support the need for such funding by officially endorsing TWW. Teaming With Wildlife is an ingenious way of investing in the future by giving Americans the opportunity to contribute now to conserving the wildlife we care about.]



SNAKES ALIVE! POLICE FOIL APPARENT PET STORE BURGLARY

By Jamie Satterfield

Note to crime-scene technicians at the Knoxville Police Department: Be very careful. This evidence slithers.

Officers responding to a possible robbery at a West Knoxville shopping center late Saturday night instead found evidence of an unusual burglary when they discovered pet carriers full of exotic snakes in the back of a Bronco parked outside a pet store.

The snakes had been removed from waterless fish tanks inside Fins and Skins Inc. in the Downtown West shopping center off Kingston Pike and placed inside portable carriers before being stashed in the Bronco, police said.

Also found in the Bronco were at least a half-dozen ferrets and a group of hamsters.

"(The Bronco) was loaded up with snakes, ferrets, hamsters and a handgun taken from inside the store," KPD officer Richard Giammarino said.

The burglars ran out a rear door before police could find them, but officer Frank Carracher later found a man, whose hands were bleeding from several cuts, trying to hide in a wooded area near Gleason Road, Giammarino said.

Police identified that man as Thomas Mason Cratty Jr., 24, of Lenoir City. Giammarino said the Bronco was registered to Cratty, who also had a cellular phone in his pocket that allegedly belongs to the owner of the Fins store.

Cratty was charged with burglary. Giammarino said a second suspect, described as a white man in his 20s who was about 5 feet 10 inches tall and was wearing a black hooded shirt, has not been identified.

Giammarino said he found himself a bit wary of walking into the pet store to conduct a follow-up probe. After all, one snake not found inside the Bronco was a large boa constrictor that Giammarino knew was part of the Fins and Skins inventory because he patrols the area and is familiar with the shop.

"I was a little leery about going in there," he said. "I kept thinking about the big boa." Fortunately, the boa was inside its large cage.

Police suspect that the same pair had tried to break into another pet store earlier. Giammarino said glass had been broken from the front of the Pet Supply City store a few blocks away, causing an alarm to sound. "The alarm scared them off," he said.

After 45 minutes later, an employee of the Food City store in the Downtown West center dialed 911 to report that two men were carrying items out of the nearby Fins and Skins store.

When Giammarino and Carracher arrived, they found glass broken from the front, which is typical of a burglary method dubbed by police as a "smash and grab." Police are also trying to determine where the ferrets were from, since those animals did not belong to the Fins store owner.

6 December 1999
Knoxville News-Sentinel
Submitted by Jerry and Nancy Green

KHS MEMBER TO PURSUE DOCTORATE AT UNIVERSITY OF TEXAS

KHS member Emily C. Moriarty, who will graduate this coming May with a Bachelor's Degree in biology from St. Mary's College, Notre Dame, Indiana, will pursue a Doctoral Degree at the University of Texas, Austin, in the fall of 2000. Moriarty, a resident of Lawrence whose serious interest in amphibians began in her early teenage years under the mentoring of Joseph T. Collins, *Herpetologist Emeritus* at the University of Kansas Natural History Museum, will continue her investigation on North American frogs of the genus *Pseudacris* while at Texas. In addition, she has expressed an interest in doing systematic research on North American salamanders of the genus *Siren*, the evolutionary systematics of frogs in general, and on conservation biology worldwide. The University of Texas program in systematic herpetology is currently considered by many scientists to be the best in the world, and is led by well-known herpetologists (and former KHS members) David M. Hillis and David Cannatella.

**EVOLUTION REVISITED: DOROTHY
HAS FLED KANSAS
FOR MORE ENLIGHTENED KINGDOMS**

By Travis W. Taggart
1115-A Downing
Hays, Kansas 67601

F. E. Northam on Dec. 3 made several important points in regards to where supernatural phenomena relate within the realm of science, and his points are well taken. However, I will make the argument here that evolution does not fit his criterion and is well within the boundaries of empirical science.

Evolution (macroevolution) is speciation. It is the process by which biodiversity is created, from viruses to vultures and all the species in between, the contemporary as well as the prehistoric. Evolution then, is not concerned with "the origin" (the physical/chemical processes leading to the genesis of DNA and/or the first cell). The evolutionary process began immediately afterwards and is therefore fundamental to all of biology since the origin.

Evolutionary biologists are those scientists who study evolution, and unlike most other scientific disciplines, which tend to be predictive, our task is almost always retrodictive. In spite of this, we are able to form hypotheses and test them through the construction and examination of phylogenies (the hierarchical "tree of life"; the pattern). The late geneticist Theodosius Dobzhansky made the astute observation that, "Nothing in biology makes sense, except in the light of evolution." And the evolutionary biologist Jay Savage followed with, "Nothing in evolution makes sense, except in the light of phylogeny." Phylogenies provide the framework upon which evolutionary hypotheses can be tested, lending support or falsification.

If the DNA consistency among all life as currently known was the sole basis upon which evolution stood (to use Northam's example), evolution wouldn't be a theory. The four basic nucleotides that make up DNA form arrangements (genes, gene families and chromosomes in general) that carry with them the history of their changes through time. It isn't enough for evolutionary biologists that bacteria, birds and bullsnakes all possess those four nucleotides. What is really interesting is that the arrangement of DNA in birds and bullsnakes is on average 76 percent identical. The DNA of bacteria and either of the other two are so vastly different that they cannot even be aligned so that a comparison of their similarity can be ascertained. To carry this further within snakes, bullsnake DNA and prairie rattlesnake DNA are yet more similar to each other, and prairie rattlesnake DNA and copperhead DNA are even more so. Recorded in the DNAs is the hierarchical pattern of past evolutionary processes and through the techniques of phylogenetic reconstruction we can discover this pattern. The correlation and hierarchical

classification of these similarities is but only one of the innumerable examples of evolutionary evidence.

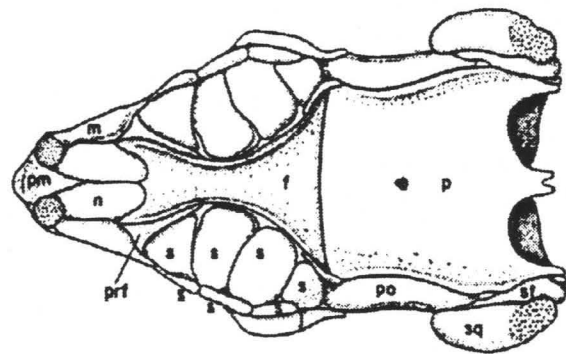
There will always be faith in any scientific endeavor, because while a single truth certainly does exist, we can never be assured that we have discovered it. However, this is a poor argument for eliminating the teaching of any science in Kansas' classrooms, as all sciences from evolutionary biology to cancer research use the same methodology in their quests for the truth.

In my opinion, the Kansas State Board of Education has gone the wrong direction in its recent decision. Evolutionary biology has progressed much since Darwin's initial proposal, and it is hard enough for the specialized biologist to stay abreast of advancements in field, let alone the untrained biologist. Genetic concepts, evolution and phylogenetic reconstruction should be taught earlier and would provide students with the framework in which to study other biological principles and pose appropriate questions, thereby facilitating their acquisition of knowledge.

8 December 1999

Hays Daily New

Submitted by MacKenzie K. Wiley, Hays.



FEATURE ARTICLES

NEW RECORDS OF AMPHIBIANS, TURTLES AND REPTILES IN KANSAS FOR 1999

JOSEPH T. COLLINS

Director

The Center for North American Amphibians and Reptiles

1502 Medinah Circle

Lawrence, Kansas 66047

&

Adjunct Herpetologist

Kansas Biological Survey

2041 Constant Avenue

Lawrence, Kansas 66047

The 20 new county records and single maximum size record listed below are those accumulated or brought to my attention since the publication of records for 1998 (Collins, 1999). Publication of these new records permits me to give credit and express my appreciation to the many individuals who collected or obtained specimens and donated them to me for deposition in an institutional collection. Further, recipients of this list are permitted an opportunity to update the range maps and size maxima sections in *Amphibians and Reptiles in Kansas Third Edition* (Collins, 1993). Finally, these new records represent information that greatly increases our knowledge of the distribution and physical proportions of these creatures in Kansas, and thus gives us a better understanding of their biology. This report is my 25th in a series that has appeared annually since 1976, and the data contained herein eventually will be incorporated into the fourth (revised) edition of my book.

The Kansas specimens listed below represent the first records for the given county based on a preserved, cataloged voucher specimen in an institutional collection, or represent size maxima larger than those listed in Collins (1993). Any information of this nature not backed by a voucher specimen is an unverifiable observation. All new records listed here are presented in the following standardized format: standard common and current scientific name, county, specific locality, date of collection, collector(s), and place of deposition and catalog number. New size maxima are presented with the size limits expressed in both metric and English units. Common names are those now standardized for North America, as compiled by Collins (1997), and are given at the species level only.

The records listed below are deposited in the herpetological collections of the Natural History Museum, The University of Kansas, Lawrence (KU) and the Sternberg Museum of Natural History, Hays, Kansas (MHP). I am most grateful to the members of the Kansas Herpetological Society, and to the staff of the Kansas Department of Wildlife and Parks and the Kansas Biological Survey, who spent many hours in search of some of the specimens reported herein. Some of the records contained herein resulted from field studies sponsored by funds from the Kansas Department of Wildlife and Parks' Chickadee Checkoff Program. John E. Simmons, Collection Manager for the Division of Herpetology, Natural History Museum, The University of Kansas, and Travis W. Taggart, Adjunct Curator of Herpetology at the Sternberg Museum of Natural History, Fort Hays State University, diligently assigned catalog numbers to the specimens listed below, and to them I am most indebted.

NEW COUNTY RECORDS

BULLFROG (*Rana catesbeiana*)

GRANT CO: Ulysses Golf Course. 3 May 1996. Dale W. Sparks, Andrew G. Burr, M. Neil Bass and Gregory A. Liggett. MHP 6715. **RUSH CO:** found dead on US Rt. 183, 10.5 km S Rush Center. 26 July 1996. Dale W.

Sparks, Andrew G. Burr, M. Neil Bass and Gregory A. Liggett. MHP 6716. **STEVENS CO:** 8.9 km N & 4 km W Feterita. 29 June 1996. Dale W. Sparks, Andrew G. Burr, M. Neil Bass and Gregory A. Liggett. MHP 6717. First reported by Sparks et al. (1999).

- COMMON SNAPPING TURTLE** (*Chelydra serpentina*)
ELLSWORTH CO: DOR on Ks. Rt. 140, ca. 1 mi W & 0.5 mi N Carneiro, Sec. 13, T15S, R7W. 21 May 1999. Travis W. Taggart, Dan Murrow, Cameron Liggett, John Denison and Kelly Egli. KU 289038. Discovered during the KHS spring field trip. **GRANT CO:** 0.8 km N & 3.6 km E Ulysses. 4 May 1996. Dale W. Sparks, Andrew G. Burr, M. Neil Bass and Gregory A. Liggett. MHP 6718. The latter first reported by Sparks et al. (1999).
- YELLOW MUD TURTLE** (*Kinosternon flavescens*)
STEVENS CO: found dead on US Rt. 56, 1.6 km N & 4 km E Cave. 30 June 1996. Dale W. Sparks, Andrew G. Burr, M. Neil Bass and Gregory A. Liggett. MHP 6724. First reported by Sparks et al. (1999).
- ORNATE BOX TURTLE** (*Terrapene ornata*)
GRANT CO: 5.6 km N & 5.6 km E Ulysses. 4 May 1996. Dale W. Sparks, Andrew G. Burr, M. Neil Bass and Gregory A. Liggett. MHP 6719. First reported by Sparks et al. (1999).
- SLIDER** (*Trachemys scripta*)
DICKINSON CO: Sec. 11, T16S, R4E. 20 June 1999. Seith Miller. KU 289039. **GRANT CO:** 0.8 km N & 3.6 km E Ulysses. 4 May 1996. Dale W. Sparks, Andrew G. Burr, M. Neil Bass and Gregory A. Liggett. MHP 6720. **GRAY CO:** 1.2 km S Cimarron. 16 June 1994. Dale W. Sparks, Andrew G. Burr, M. Neil Bass and Gregory A. Liggett. MHP 6721. The latter two records first reported by Sparks et al. (1999).
- PRAIRIE LIZARD** (*Sceloporus undulatus*)
PHILLIPS CO: 0.5 mi S Speed, Sec. 26, T4S, R19W. 26 April 1981. Steve M. Royal. MHP 6704. **STEVENS CO:** Cimarron National Grasslands, 9.7 km N & 3.2 km W Feterita. 29 June 1996. Dale W. Sparks, Andrew G. Burr, M. Neil Bass and Gregory A. Liggett. MHP 6722. First reported by Sparks et al. (1999).
- BROADHEAD SKINK** (*Eumeces laticeps*)
NEOSHO CO: Sec. 22, T30S, R20E. 28 April 1978. N. J. Hilscher. MHP 5757.
- GREAT PLAINS SKINK** (*Eumeces obsoletus*)
SMITH CO: Sec. 19, T5S, R13W. 3 May 1980. B. Rhodes. MHP 6661.
- TEXAS BLIND SNAKE** (*Leptotyphlops dulcis*)
KIOWA CO: NW 1/4 Sec. 8, T30S, R16W. 25 June 1999. Derek Moeller, Allie Kossoy and Whitney Hamilton. KU 289043. Most northern record for the state.
- EASTERN GLOSSY SNAKE** (*Arizona elegans*)
STEVENS CO: Cimarron National Grasslands, 9.7 km N & 3.2 km W Feterita. 29 June 1996. Dale W. Sparks, Andrew G. Burr, M. Neil Bass and Gregory A. Liggett. MHP 6723. First reported by Sparks et al. (1999).
- NORTHERN WATER SNAKE** (*Nerodia sipedon*)
ELLSWORTH CO: Kanopolis Lake State Park, Horsethief Canyon area. 22 May 1999. John Tollefson and Travis W. Taggart. KU 289044. Discovered during the KHS spring field trip.
- GRAHAM'S CRAYFISH SNAKE** (*Regina grahamii*)
DICKINSON CO: Herington City Lake, Sec. 11, T16S, R4E. 28 May 1999. Seith Miller. KU 289045.
- BROWN SNAKE** (*Storeria dekayi*)
STAFFORD CO: Quivira National Wildlife Refuge, 0.25 mi E of western refuge boundary, Sec. 20, T21S, R11W. 14 November 1998. Greg H. Farley. KU 288629. First reported by Farley (1999).
- PLAINS GARTER SNAKE** (*Thamnophis radix*)
GREENWOOD CO: Herington City Lake, NE 1/4 Sec. 22, T23S, R8E. 24 September 1999. Steven L. Adams, Kelly J. Irwin and Joseph T. Collins. KU 289049.

NEW MAXIMUM SIZE RECORDS

- LESSER EARLESS LIZARD** (*Holbrookia maculata*)
TREGO Co: Cedar Bluff Reservoir, Sec. 3, T15S, R22E. 22 March 1986. Dan E. Heskett (MHP 6675). Total length = 122 mm (4 13/16 inches). Sex not determined. Measurement was provided compliments of Travis W. Taggart.

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CHANGE OF SPECIFIC STATUS FOR THE GREEN LACERTA, AN ALIEN LIZARD INTRODUCED IN TOPEKA

The Green Lacerta (*Lacerta viridis*) was first listed as an European species introduced in Kansas by Collins (1974, as later reported in Behler and King 1979 and Smith et al. 1982). In the late 1950s, specimens of *Lacerta* escaped from a commercial animal dealer located at Gage Boulevard and 21st Street in south Topeka. They established a population whose range is currently confined to a few streets around the point of their initial escape. Another introduced European species (*Podarcis sicula campestris*), also escaped, and currently occupies a more extensive range throughout urban Topeka. Reasons for the difference in their Topeka ranges are unknown. A plausible factor limiting the further expansion of both beyond the Topeka city limits might be the natural occurrence of *Eumeces obsoletus*, which preys on the young of both *Lacerta* and *Podarcis*. *Lacerta* was not observed in Topeka for over two decades, leading Collins (1993) and Conant and Collins (1998) to not list *Lacerta* as an introduced species in Kansas. Gubanyi and Gubanyi (1996) and Gubanyi (1997) reported a specimen from south Topeka in 1996. One of us (LM), a science teacher at Topeka Collegiate School, performed a project entitled *In Search of the Green Lacerta* with students in 1997 and corroborated the presence of a *Lacerta* population in the area.

In Europe, *Lacerta viridis* was recently recognized as consisting of two distinct species, the Eastern Green Lacerta, *Lacerta viridis*, and the Western Green Lacerta, *Lacerta bilineata*, based on genetic differences (Amann et al. 1997). *Lacerta viridis* ranges from the Black Sea to the Balkan peninsula of Hungary, Austria, Slovakia, Czechia and eastern parts of Germany, while the range of *L. bilineata* covers western parts of Germany, France, the English Channel Islands, northern Spain, Andorra, southern Switzerland, Monaco and Italy. The contact zone of both species, in Slovenia and northern Croatia, is currently under investigation (Amann, pers. comm.).

The genetic difference between both species is of such magnitude that they cannot be crossed in captivity (Amann et al. 1997). Adults are indistinguishable; only hatchlings and young can be identified with certainty, as follows: juvenile *L. viridis* are brown all over with yellowish throats and undersides whereas juvenile *L. bilineata* are brown dorsally but possess green throats and, additionally, some specimens have green on the sides.

The city of Bologna, Italy, was once a center of export for reptiles in the 1950's, and thus northern Italy may be a speculative but probable locality for the origin of the Topeka *Lacerta*. Before genetic analyses are performed, an inspection of young might shed light on the uncertain origin of the Topeka population. Smith et al. (1982) depict

an illustration of a young *Lacerta* displaying a green throat like that of *L. bilineata*. The artist, David M. Dennis, stated that the model for his drawing was not a specimen from Topeka, but a photograph of unknown origin, hence providing no evidence towards the identification the Topeka populations to either *L. viridis* or *L. bilineata*. Hans Konrad Nettmann, University of Bremen, Germany (pers. comm.) identified a semi-adult female photographed by the second author as resembling those found in central Italy, which makes *L. bilineata* a more likely name for the Topeka lizards. During two short trips to Topeka (3–4 October 1998 and 15–16 April 1999), the first author failed to find any young *Lacerta*. The second author performed another *In Search of the Green Lacerta* project at Topeka Collegiate School during the summer of 1999, in which citizens of Topeka were asked to report lizards in their yards and gardens. This project was successful and young *Lacerta* showing green coloration were photographically documented. On 11–12 September 1999, the first author inspected four specimens kept by James Gubanyi, Topeka, and six in the "wild" at 2240 SW 23rd Street, Topeka, all of which had green throats. Following Amann et al. (1997), we conclude that the specific status of the Topeka population is *Lacerta bilineata*, the Western Green Lacerta. A genetic analysis is planned by the Natural History Museum at the University of Kansas, Lawrence, under the auspices of John Simmons, in an effort to gather more data in which to test our findings.

Acknowledgements

The first author wishes to express his sincere thanks to the following for their support. Upon request by the first author, F. Wayne King, Gainesville, Florida, initiated a chain of recommendations (John E. Simmons, Joseph T. Collins) leading finally to the second author, which led to field research in urban Topeka. Russell Burke, Hempstead, New York, aided the first author in contacting David M. Dennis, the artist in Smith, Dennis and Barlowe.

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FEBRUARY AMPHIBIAN AND TURTLE OBSERVATIONS IN SHAWNEE COUNTY, KANSAS

Following is information on frogs and turtles that Suzanne and Larry L. Miller either observed and/or heard calling during the afternoon of 27 February 2000 on their land located northeast of 97th and Jordan Road, which is northeast of Wakarusa, Kansas. All observations were made between 2:00 pm and 6:00 pm. However, Western Chorus Frogs started calling well before noon and were still calling at about 7:30 pm. The temperature was 45°F. at 7:30 pm. The weather was warm (between 55 and 65°F. during most of the afternoon and sunny. There was a very light wind out of the north. It had rained the previous Friday. Altitude of the area is between 930' and 1000' above sea level.

Western Chorus Frogs (dozens and maybe hundreds) were calling from several shallow ponds, standing water in ditches, and standing water in other low places in areas of both native and non-native grass.

One Plains Leopard Frog was observed in a shallow pool located in an area of native grass. It was active.

A dozen or so Northern Cricket Frogs were observed along the mud banks of Colby Creek near 97th and Jordan Road.

Three Painted Turtles were observed on a log at a small shallow pond in the area.

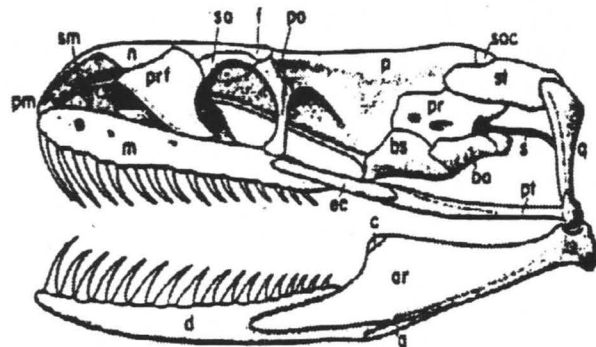
All animals observed were adults.

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A WINTER SNAKE IN SHAWNEE COUNTY

A Common Garter Snake (*Thamnophis sirtalis*) was observed on a south-facing slope near Colby Creek located along SW 97th Street north of Wakarusa, Kansas (Shawnee County) at 14:15 hours on Saturday, 15 January 2000, by Larry L. Miller and Suzanne L. Miller. The air temperature at the time was 60°F and the wind was out of the south at from 10–20 mph. The sky was partly cloudy. The snake was a young adult and was a little slow, but active. It was covered with soil, and part of the tip of its tail had been cut off in some way. The wound was rather recent, and it could have been caused by a rodent. The soil where the snake was observed was rocky with dry leaves and other dry vegetation.

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SHORT COMMUNICATIONS

KANSAS MAPS ON THE INTERNET

The Internet has perhaps done more for the exchange and distribution of information in past five years than all other media combined throughout history. Herpetologists now have a wealth of information at their fingertips, whether it be by e-mailing an expert, checking out journal contents, browsing research collections, or exploring one of the many regional guides featuring color images, up-to-date maps, and texts. Although still in its infancy, the Internet is well on its way to revolutionizing the way we spend our everyday lives.

This is the first in a four part series emphasizing the free resources currently available to the herpetologist (amateur or professional) that they might find useful if not invaluable. This first installment will cover maps and map resources. Subsequent issues will cover (June) taxonomy and phylogeny-related sites including research collections, online publishing, and checklists, (September) regional guides, organizations, and images, and finally (December) discussion groups, directories, and individual herpetologists online.

Ten map based website were selected which cover the breadth of current map applications available on-line. The URL of each is listed and followed by a brief text description. TWT.

GLOBAL 30-ARC-SECOND ELEVATION DATA SET

(<http://edcwww.cr.usgs.gov/landdaac/gtopo30/gtopo30.html>)

GTOPO30 is a global digital elevation model (DEM) with a horizontal grid spacing of 30 arc seconds (approximately 1 kilometer). This site allows you to view DEM maps online or download them for use in Geographic Information Systems (GIS) or a compatible graphics program. Additionally, CD-ROM's containing the data may be purchased for a nominal fee. Provided by the United States Geologic Survey (USGS).

ONLINE MAP CREATION

(http://www.aquarius.geomar.de/omc/omc_intro.html)

This is truly one of my favorite sites. It dynamically builds a map based on the parameters you enter. Unlike most other similar sites however, you get to define the boundaries, as well as input coordinates to be plotted. You also have the ability to plot bathymetry, topography, state boundaries, and pick the projection type. Another unique feature is the ability to show plate boundaries and other tectonic features. The maps can also be downloaded as .jpg, .gif, .eps, and even as Adobe Illustrator files.

PALEOGEOGRAPHY OF THE SOUTHWESTERN UNITED STATES

(<http://vishnu.glg.nau.edu/rcb/paleogeogwus.html>)

While largely extralimital to Kansas, I've included it because of the exceptional quality of maps it contains. The images presented show the paleogeography of the SW US from 1.8 billion years ago to 10 million years ago. When played in order, the paleogeographic evolution of the region unfolds. Emphasis is on the Mesozoic where two or more images of each period are shown. In addition, a series of globes showing the hemisphere in which North America (NAM) was located, present the broader setting in which the more detailed maps are located.

NATIONAL ATLAS OF THE UNITED STATES OF AMERICA

(<http://www-atlas.usgs.gov/scripts/start/html>)

The self-described goals of the National Atlas are to contribute to a better understanding of the environmental, resource, demographic, economic, social, political, and historic dimensions of American life. It includes products designed to stimulate children and adults to visualize, comprehend, and even marvel at the complex relationships between environments, places, and people. This site allows you to select and display map layers. Roam across America and zoom in to reveal more detail. You can even point at map features to learn more about them.

THE TOPO-ZONE

(<http://topozone.com/>)

The Topo-Zone is the center for all topographic map users. In conjunction with the USGS they've created the Web's first interactive topographic map of the entire United States. They have every USGS 1:100,000, 1:25,000, and 1:24,000 scale map for the entire United States and Alaska (1:63,360) and Puerto Rico (1:20,000) will be coming soon. You begin by typing a place name in the search box, clicking on the reference you're interested in, and view the topographic map sections in four different magnifications and three different sizes.

THE PERRY-CASTAÑEDA LIBRARY MAP COLLECTION THE UNIVERSITY OF TEXAS AT AUSTIN

(http://www.lib.utexas.edu/Libs/PCL/Map_collection/Map_collection.html)

This is one, if not the, premier collection of online/digitized maps on the Internet. The Perry-Castañeda Library Map

Collection (PCL 1.306) holds more than 2,400 digitized maps covering every area of the world. They also include links to other map libraries as well as other electronic cartographic reference resources.

COLOR LANDFORM ATLAS OF THE UNITED STATES

(<http://fermi.jhuapl.edu/states/states.html>)

This is version 2 of the Color Landform Atlas of the United States. Each state link brings up a menu of links to maps and other online information about the state. There are two main types of links on each state page: maps and images local to this site, and links to external web sites. Actual satellite images are also available on this site.

TERRASERVER

(<http://terraserver.microsoft.com/>)

Perhaps the most impressive interactive map site on the Internet. Microsoft's TerraServer provides high-resolution satellite images, from both USGS georectified digitized aerial photographs and declassified satellite photographs from Russian mapping satellites. The site covers the entire US for USGS topographic maps and all of Kansas for

topographic maps and orthographic aerial photos. This site allows you to go from a view of the earth from space to such detail that you can easily pick out your own house.

KANSAS DEPARTMENT OF WILDLIFE AND PARKS

(<http://www.kdwp.state.ks.us/>)

The Kansas Department of Wildlife and Parks web site has digitized (.pdf) KDOT county maps illustrating the locations of Walk In Hunting Areas (WIHA) throughout the state. The WIHA areas depicted on the maps are closed to herping activities, but the maps themselves are very useful at all times. A few of the Kansas state park and wildlife area maps and brochures are also available as .pdf downloadable files.

KANVIEW WWW PROJECT

(<http://gisdasc.kgs.ukans.edu/kanview/kanview.html>)

KanView is intended to provide cartographic representations of Kansas' people, culture, and environment. Most of the map views are clickable, allowing users to explore maps on such details as topography, aquifers, geology, hydrology, land cover, and relief, at different scales.

CURRENT LITERATURE

This current literature section contains titles of books and articles on amphibians and reptiles written in 1999 and of possible interest to KHS members. Generally, titles listed here are those written by KHS members, those that contain direct reference to the Kansas herp specimens, or those of significance regarding amphibians and reptiles indigenous to Kansas.

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Ashton, K. G. 1999. *Sceloporus undulatus elongatus* (Northern Plateau Lizard). Egg laying. *Herpetological Review* 30(2): 98.

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RETROSPECTIVE

This section is used for the publishing of old, out-of-print, and hard to find small articles relevant to Kansas herpetology and of historical importance. The first offering is a particularly influential article from the April 1980 KHS Newsletter, *Hitchhike Herping in December*, by Kelly Irwin. It was especially influential for me, as Kelly's almost mythological travel crossed right through my hometown of Humboldt. I immediately began pestering my dad to take me there, which he did. For those of you that know Kelly or have read this before, there isn't much surprise. But for those of you that haven't (and especially the impressionable youth), I hope you read this with the same wide-eyed wonderment that I did.

HITCHHIKE HERPING IN DECEMBER

by Kelly J. Irwin

KHS Newsletter Number 36 (April 1980)

A brief introduction is in order before I relate to you my journey of December 23-24, 1979. The previous week, Joseph T. Collins of the University of Kansas Museum of Natural History, received a telephone call from Patrick H. Ireland (Dept. Biology, Radford College, Radford, VA 24141). Ireland had plans of visiting Schermerhorn Park enroute to his parents home for the holidays. Schermerhorn is located on the southern outskirts of Galena, Kansas in the extreme southeastern corner of the state. He had intentions of entering a cave in the park to look specifically for graybelly salamander larvae (*Eurycea multiplicata griseogaster*) which he had recorded for the first time in the state.

I wandered into Collin's office the following day for a chat. During the course of our conversation he sighed when he mentioned how he'd sure like to photograph a true Kansas graybelly salamander, but couldn't arrange to meet Ireland due to previous plans. Having heard this, visions of my first and only visit to the park in 1977 came to mind. It was at that time that I got my first introduction to the cave salamander (*Eurycea lucifuga*) and the dark-sided salamander (*Eurycea longicauda melanopleura*). Since Collins couldn't make it I thought it would be great to observe the rare salamanders again, and with luck, find the even rarer graybelly. I decided then that I was going to get there. My old truck was totally uneconomical for my limited resources. I checked with the bus station and tickets were \$33 roundtrip but I didn't have that kind of money! There was one more possibility, I would ask Hank Guarisco if he would be interested in going. He had a new GLC Mazda that gets good mileage. I presented him with the idea and he thought it was excellent, since he had not seen these rare Kansas animals.

We made plans to leave early Sunday morning December 23 and return Monday the 24th. All was ready Saturday evening when I got a phone call from Hank at 11:30; he was sick and was not up to traveling the following day. As

I hung up the phone, I felt a twinge of regret of not being able to see the salamanders. I had really set my heart on observing these delicate and unique creatures in the only habitat suitable for their existence in Kansas. With that, I came to the abrupt conclusion that the only way there would be to hitchhike.

I set about assembling and packing the bare essentials in my day pack, and tied by bedroll underneath. With thumb in air, I stood [sic] on Iowa Street at 12:30 in the morning. My first ride was with a Japanese student attending KU, who got me as far as the edge of town, headed south on Hwy 59. It wasn't long before two guys stopped in a pickup. They gave me a beer for the road and dropped me off about 8 miles south of Lawrence. I walked for one or two miles before I got a lift to the junction of highways 56 and 59. From there I walked on, and with another ride was deposited in downtown Ottawa, Kansas at 2:00 AM.

I was still in Ottawa thumbing at the occasional car, when an El Camino cruised by and locked up all four wheels. It slammed into reverse and pulled up alongside me, "Where ya going?" a young man riding shotgun yelled. "As far south on 59 as you'll take me", I replied. "Hop in", he said. We cruised Main as I told them of my plans to meet up with a fellow herpetologists to look for these little known caudates in Kansas. They dropped me off about 9 miles from Ottawa on the dark, deserted highway. I started walking again with no success with the 4 or 5 cars that went by. I didn't think any of the drivers would consider picking up an odd looking fellow at that time of morning. I had been walking for some time, and, no vehicle had driven by for what seemed like ages, when out of the balmy night gloom appeared several large corrugated steel tubes. (They were lying in a field next to the highway, and were about four feet in diameter and about twenty feet long.) These would be a perfect place to rest some weary bones and get out of the persistent south wind. I bedded down and dozed off feeling quite comfortable, only to awaken with chattering teeth and a shivering body. I was still dark, the weather had changed and there were low clouds racing overhead. I packed up and hit the highway once again; it wasn't long before the old juices began circulating and warmth re-

turned to my body. My poncho and coat were definitely not good enough insulators for sleeping outside. I walked on for sometime, one car and two semi-trucks passed me in the wee hours of the morning. The only sounds were the wind, my footsteps, and the continual hum of the power lines running parallel to the highway. The temperature had been in the upper 30's earlier but was fast approaching freezing as the morning chill frosted the gray countryside.

I arrived in the hamlet of Richmond, which is about 7 miles north of Garnett, at 6:00 AM. I sat down on the step of the building and ate the orange I had packed. Then I proceeded down the highway. There were many birds becoming active in the forests along the highway as the day dawned cold and gray. I was still walking when I got a lift two miles north of Garnett. The gentleman who picked me up deposited me at the local restaurant at 9:00 AM. I had a substantial breakfast of coffee and pancakes for a quarter less than the usual price. Therefore, I wondered if the waitress was feeling sorry for me. Nevertheless, it was a good breakfast. Once again, I trudged on. About two miles south of town a station wagon full of people pulled over. It was a family which I had seen earlier in the restaurant. They were headed for Chanute so I took them up on their offer of a ride. It wasn't long before I was walking again headed south out of Chanute, wondering where I was, and, how far west I had gone out of my way, when a Mustang pulled over. It was a young guy and his sister. They were headed for Erie, a town south and east of Chanute. Erie is east of Hwy 59 so it was just the ride I needed to get me back on a more direct route. They dropped me off 3 miles south of Erie. Luck was with me. From there, I thumbed a couple of miles before an old beat-up Chevy Impala pulled over, with a long-haired man at the wheel. As it turned out, he lived in Topeka, my home town, and was headed for Columbus for Christmas. This was fantastic for that would put me within 21 miles of my destination. It was about noon when he drove away leaving me standing in the rain, on the road headed east to Crestline. I hadn't thumbed for 10 minutes before a couple of "good ole boys" picked me up and dropped me off at my great aunt and uncle's home just south of Crestline. During the ride we had a pleasant conversation about the Spring River and its riffles which might harbor the hellbender (*Cryptobranchus a. allenganiensis*) in Kansas. I knocked on the door but no one was home, so I stowed my pack and prepared my gear in the barn.

I walked about 7 of the 13 wet miles to the park, with only two short lifts as far as Galena. I had to walk the rest of the way to the park. It was getting late in the afternoon by the time I got there and things were pretty dismal in the rain. The gates to the park were locked so I jumped the wall and trotted towards the cave. The closer I got the more appalled I became of the surroundings - someone had burned off the understory of the park and cut down the trees at the mouth of the cave. Why, I don't know.

Once at the cave I proceeded into the twilight zone—the great limestone overhang—and peeled off my soaked poncho and readied my headlamp. I then carefully worked my way through the small opening into the cave proper. I had barely gotten my torso through the opening when the beam of my headlamp caught a movement in a crack. It was an adult cave salamander. It was a beautiful sight and this is what I had traveled so far to see. It was in such a narrow space that I couldn't pick it up to examine it. Therefore, I was content to watch it retreat into the darkness away from my light. I proceeded further, carefully lifting each rock as I went and placing it back as it was. I felt chilly in the twilight zone but once inside the cave, the air seemed warmer and it didn't have a chilling effect. I finally made it 15 to 20 feet from the opening and was lying in a crawl space about two and half feet in height. I could perceive that the cave extended for quite some distance further back, with an entirely mud covered floor, which didn't look very suitable for salamanders. It was at this point that I began looking under rocks in the clear, shallow, pool which prevented further exploration since I didn't feel like getting completely soaked. I found an adult dark sided salamander under a rock at the edge of the pool. I observed it for a while then left it alone to go hide after its disturbance.

I peered intently into two deep pools but could discern no larvae in my beam. With that, I slowly turned around on my belly and made my way back to the entrance, where I got one final look at a big adult *Lucifuga* which seemed to be guarding the entrance of its domain. Once back outside I began turning rocks in the leaf litter and peering into crevices in the wall blocking the original cave entrance. I turned up 4 sub-adult *Lucifuga* in the leaf litter and observed a total of 8 sub-adult *Longicauda* along a 15-foot length of the wall, either under rocks or in cracks.

There was a small trickle of water flowing from the pipe which continually drains the cave spring. I poked around it but turned up nothing. It was dark by now. I put my poncho back on and stepped out from under the overhang into the rain. I followed the course of stone-lined drainage ditch from the cave to the pool. It was here amongst the oak leaves on the bottom that I observed two plump, light-colored grotto salamander larva (*Typhlotriton spelaeus*). As I looked up from the pool a movement along the edge caught my eye; and, there in the cold rain, sat a lone cricket frog *Acris crepitans blanchardi*. With this final observation, I turned off my head lamp and made my way back to the highway. I was very tired and hungry, yet I felt quite happy and elated with my observations as I walked towards Galena on Hwy 26. In Galena I had one hell of a time finding a phone to call my uncle. When I did, it looked like it had been in use since the 50's. It ate \$.25 before I finally got through to central and they connected me to my uncle's number. Uncle Tom pulled up in front of the greasy spoon cafe from where I had called at 7:00 PM. It was a cold rainy

night to be hitchhiking and it felt great to be riding in my uncle's big warm car. I told him of my trip on the way to his home. Aunt Beryl was waiting for me with a number of chicken sandwiches and incredibly delicious canned tomatoes, and, a hot bath. After supper and a bath, I was feeling quite comfortable in my change of clothes and cozy surroundings and was evidently quite sleepy, for I was in bed by 8:30. I feel asleep immediately. the next thing I realized was Uncle Tom calling me for breakfast. I arose and got dressed, feeling slightly stiff, but refreshed. AS I descended the stairs, that classic, early morning, the smell of fried bacon and eggs brought me to life. Just out of curiosity I asked Uncle Tom what time it was. "5:30", he casually replied. If i were to catch a bus home, I had to be in Joplin, Missouri by 7:30. I said goodbye to Aunt Beryl with much gratitude for her thoughtfulness and care, then hopped into

Uncle Tom's car. We had an early morning drive through the dark, then graying countryside, as a wet snow swirled around us. I bid adieu to Uncle Tom at the bus station in Joplin and boarded the bus. If it weren't for the kindness extended to me by my aunt and Uncle upon my imposition, I wouldn't have made it home for Christmas; and, I express my deepest thanks to them. As it turned out, I sat right through my 1:00 departure from Kansas City to Topeka, so I had to wait until 6:00 PM when the next bus left. I finally set foot in Topeka at 8:00 PM December 24th, 1979, 43 hours after leaving Lawrence. I was well-worth the time to have seen the most beautiful and unique creatures of Kansas.

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