

December, 1986

ANNOUNCEMENTS

New Publications Available

The Smithsonian Herpetological Information Service has recently issued six new publications of potential interest to KHS members. They are:

No. 66, An Annotated Bibliography of New Caledonian Herpetology, by Aaron M. Bauer

No. 67, Major Characteristics of Free-Living Anuran Tadpoles, by Ronald Altig and Gail F. Johnston (also available on computer disks from the senior author).

No. 68, An Inventory of the Display-Action-Patterns in Lizards, by Charles C. Carpenter. This includes a list by species of references to publications on display-action-patterns.

No. 69. An Inventory of Combat Rituals in Snakes, by Charles C. Carpenter.

No. 70. Addenda and Corrigenda to the Catalogue of Neotropical Squamata, by P.E. Vanzolini. This publication updates the only comprehensive work published on neotropical reptiles, with corrections to the keys to identifications and lists of new species since the Catalogue's first publication.

No. 71. Key to the Snakes and Lizards of China, by Zhao Ermi and Jiang Yaoming.

No. 72. A Bibliography of the Herpetofauna of Florida, by Kevin N. Enge and C. Kenneth Dodd. **Very** comprehensive.

These publications are available by writing Dr. George Zug, Division of Amphibians and Reptiles, National Museum of Natural History, Smithsonian Institution, Washington, D.C. 20560, and include a self-addressed mailing label with your request.

The Smithsonian Institution Press also announces a reprint of the famous Catalogue of the Neotropical Squamata, both Part I (Snakes) and Part II (Lizards and Amphisbaenians). First published in 1970, these two volumes have long been out of print, yet are the only comprehensive checklists and keys to Central and South American snakes and lizards. Keys are in both English and Spanish, and the reprint comes complete with an update of the taxonomic nomenclature through early 1986 by P.E. Vanzolini. 296 pages, paperback. Price is \$29.95 plus \$1.75 postage. Send orders to: Smithsonian Institution Press, P.O. Box 4866, Hampden Station, Baltimore, MD 21211.

Herp-Net

The Herpetology on-line Network is an interactive electronic publication available 24 hours a day to all computer users. Set your modem to 8-N-1 at 300/1200/2400 band. The data line is (215) 698-1905. The address is Herp-Net, P.O. Box 52261, Philadelphia, PA 19115.

1987 Herp Husbandry Symposium

For those of you who like to plan ahead, the 1987 Eleventh Annual International Herpetological Symposium on Captive Propagation and Husbandry will be held in Chicago during the month of June. Stay tuned for further details.

New Career Pamphlet Available

A new booklet, Careers in Biological Systematics, is now available from the Society of Systematic Zoology. The booklet explains that systematics is "the study of the kinds of organisms of the past and living today, and of the relationships among these organisms." It explains how systematists do their work, what kind of educational background is needed, salaries and job availability, and includes sources of further information. Copies may be obtained from the Society of Systematic Zoology, c/o National Museum of Natural History, 10th and Constitution N.W., Washington, D.C. 20560.

The Turtles of Tortuguero

Holbrook Travel, Inc., is coordinating the 1987-88 Tortuguero Turtle Tagging Project begun 30 years ago by Dr. Archie Carr. They are looking for volunteers for a 13-day adventure in Costa Rica that includes seeing some of the Costa Rican cloud forest as well as working with the sea turtles at the Green Turtle Field Station in Tortuguero, Costa Rica. Cost from Miami is \$1,395 per person. For more information, contact Holbrook Travel, Inc., 3540 N.W. 13th Street, Gainesville, FL 32609, or call toll free 1-800-451-7111.

The Day Of The Snake

Filmakers Library, Inc., announces "a spellbinding film that both entertains and educates. It explains the biology and evolution of the snake, and also places the species within a cultural and philosophical framework." The film, produced in India by Pradip Roy Shah for Raviraj Films Limited, is available in one-hour and half-hour versions, in 16 mm and video, for rent or sale. For further information, contact Filmakers Library, Inc., 133 E 58th St, New York, NY 10022, phone (212) 355-6545.

New York Herpetological Society

Founded in 1954, the New York Herpetological Society is a tax-

exempt, non-profit organization open to anyone interested in the study, care, and conservation of wildlife in general and reptiles and amphibians in particular. They publish a bi-monthly newsletter and periodic issues of HERP BULLETIN, and hold monthly meetings at various locations in New York. Membership for Regular Members is \$12 per year, for Associate Members, \$10 per year. Send letter of application and check to the New York Herpetological Society, P.O. Box 1245, Grand Central Station, New York, NY 10017.

Sale on Back Issues of Herpetologica

The Herpetologists' League is having a sale of back issues of their journal, Herpetologica, with a 20% discount for complete volumes (one volume is all four issues published within a calendar year), or 50% discount if you buy ten or more volumes.

| | <u>Pre-Discount Prices</u> | |
|-----------------|----------------------------|----------------|
| Vol. 1-29 | | \$25.00/volume |
| Vol. 30-39 | | \$40.00/volume |
| Vol. 40-current | | \$50.00/volume |

Postage will be paid by Herpetologists' League. Address orders to Ellen J. Censky, Section of Herpetology, Carnegie Museum of Natural History, 4400 Forbes Avenue, Pittsburgh, PA 15213.

Kansas Herps for Sale

The January/February issue of Kansas Wildlife magazine (Vol. 44, No. 1, pages 10-13) contains an interesting article by Robert F. Hartmann, Supervisor of the Kansas Fish & Game Commission Fisheries Investigation and Development Section, titled "For Sale: Frogs, Turtles & Snakes." The article describes some of the Kansas herps on the retail and wholesale markets, and what they are used for. It also gives a brief history of why sales of Kansas wildlife are regulated by the Fish & Game Commission, and details the aims of the regulation of the catch.

The following figures are given as the "reported commercial harvest in Kansas" (it is assumed that some commercial harvest goes unreported):

| | 1983 | 1984 | 1985 |
|-------------|-------|--------|-------|
| Frogs | 1,597 | 4,000 | 124 |
| Toads | 50 | 50 | 21 |
| Salamanders | 3,218 | 13,990 | 1,671 |
| Lizards | 429 | 77 | 363 |
| Snakes | 48 | 176 | 556 |
| Turtles | 162 | 1,326 | 1,004 |

The article says that the most popular species were the neotenic tiger salamanders ("waterdogs") and box turtles, and further concludes that "except for rattlesnakes, used primarily in process goods, most reptiles taken in quantity enter the pet trade."

KHS BUSINESS

KHS 13th Annual Meeting Held At Lawrence

The 13th annual meeting of the Kansas Herpetological Society was held the weekend of 15-16 November 1986 at the Museum of Natural History of The University of Kansas in Lawrence. There were close to 100 people there from Kansas, Missouri, Nebraska, Oklahoma, and Texas.

Everything got underway early Saturday morning with a welcome by KHS President Martin Capron of Oxford.

The first speaker was Joseph T. Collins, talking about the discovery of two new subspecies of snakes in Kansas during 1986. They included the Texas rat snake that was discovered in Sumner County around Caldwell by students at Caldwell Elementary School and their teacher, Larry Miller, and the Texas garter snake found in Meade County by Kelly Irwin. Collins illustrated his talk with color slides of the animals. He stated that he feels there are other animals waiting to be discovered in Kansas. Only time and hard work will tell.

James B. Murphy of the Dallas Zoo next gave a very interesting and informative talk dealing with the feeding and care of captive animals. He told of some of the problems encountered with zoo animals and how they sometimes can be overcome.

During a short break at mid-morning, about 60 of those attending gathered on the stage of the auditorium for the annual group photo. It took some doing, but they finally all looked toward the camera at the same time.

Olin Karch of Emporia gave the next presentation. It dealt with his adventures on a recent trip to Costa Rica. He used slides not only of amphibians and reptiles to illustrate his talk, but also of such strange things as insects, birds, and other objects that most herpetologists have few dealings with.

Martin Capron was the first speaker after the lunch break. He discussed the discovery of the female alligator snapping turtle last spring in Kansas and the efforts to track it using radiotelemetry. Due to heavy rains and very high water, the animal was lost a short time after it was equipped with a transmitter and returned to the wild.

Kelly Irwin of Manhattan gave a report dealing with the 1986 biological survey of the Cheyenne Bottoms Wildlife Refuge. He explained the methods used to determine the number of species of amphibians and reptiles at the refuge and their population sizes. The Kansas Herpetological Society assisted with this survey during their 1986 Spring Field Trip (see KHS Newsletter No. 64, pp. 4-5).

The 1986 business meeting was then called to order by KHS President Martin Capron. Jeff Whipple of Eudora was voted President-Elect in a very close election. Membership was also discussed, along with the next spring field trip, and money matters. The KHS membership was at over 200 at the time of the meeting. The next field trip has tentatively been scheduled for northeastern Kansas, the first week-end of June 1987.

KHS had \$657.42 in the bank. Members reported that they were getting their newsletters much better now that KHS is using the more expensive first-class postage. Several members expressed an interest in having a list of all KHS members and their addresses published in the first newsletter of 1987.

The next talk was by Errol Hooper Jr., of Ottawa. He showed color

slides and discussed the species of reptiles and amphibians found in Franklin County, Kansas. It was an informative talk about a county that the KHS has not dealt with much in the past.

Following this was the always surprising showing of color slides of herpetologists and the creatures that make them social outcasts. It will be talked about for some time to come. There were not only a lot of good photos of amphibians and reptiles, but photos of KHS members that dated back ten or more years. After it was over, most of those viewing the strange slides decided that they were not the outcasts, but the rest of the world was. Besides, there is nothing wrong with holding a live lizard in your mouth while you get a bag ready. Is there?

Jeff Whipple gave everyone a tour of the Animal Care Unit at The University of Kansas, following the slide program. He showed how the animals were housed and talked about the units operation.

The auction started at 7:30 on Saturday evening. Joseph Collins once again served as auctioneer, and did a super job. When it was over, items such as books, snake hooks, t-shirts, artwork, and cages had been sold. The total income for the KHS from the auction was a record breaking \$824.00! Thanks to all of those supporting this successful event this year.

Sunday morning came all too soon for some of those attending the meeting. Martin Capron welcomed everyone back at 9:30 a.m.

The first speaker for the day was Larry Miller of Caldwell. He spoke on the ornate box turtle and how the sixth grade class at Caldwell Elementary School worked successfully to have it named the official Kansas State Reptile. His talk was illustrated with color slides showing the progress of the campaign during late 1985 and early 1986.

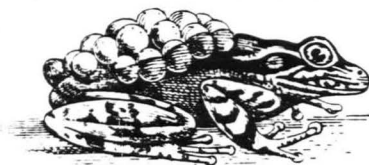
Eric Rundquist of Wichita then talked about the serious problems in many pet stores that sell amphibians and reptiles. He stated that often the people involved with the selling of these animals know very little about their care, and often the animals either die or suffer greatly due to their lack of knowledge. He gave a number of examples of his observations.

After a short break, the last speaker was Linda Ford of Lawrence. She showed slides and described her trip in the fall of 1984 to Cerro de La Neblina, "The Mountain of the Mists," in Venezuela as part of a team of scientists conducting an extensive biological survey of this unknown region of South America.

The meeting closed with several announcements, including the news of the formation of the Wichita Herpetological Society. This newly formed society has lots of potential, since it is located in a large city with so many people interested in herpetology.

The 1986 meeting was one of the best ever. President Martin Capron turned the meeting over to 1987 President Olin Karch, who then closed the meeting.

After the meeting, Joseph Collins took a number of people on a tour of the offices, labs, and collection in the Division of Herpetology of the museum, and then up to see the exhibit featuring "Tina" the ornate box turtle that was used during the campaign last year.



--Larry Miller
524 North Osage Street
Caldwell, Kansas 67022

KHS BRINGS YOU NEWS OF THE WORLD...

Study Shows Most Truckers Aim at Reptiles

It can now be safely--and accurately--said (if there ever was any doubt) that truck drivers don't care much for snakes.

This trifle of not very startling news was made the other day when Butler County Community College biologist Bill Langley revealed the results of a study he and two of his students conducted earlier this fall.

In the name of science, they put out 20-inch-long black rubber snakes at three locations along K-253 between Towanda and El Dorado. Then they hid alongside the road or in bushes or in a car or a culvert and watched how drivers reacted when they spotted what they at first thought was a live snake in the middle of the road.

From mid-August to September's end, they made 150 observations.

There were, said Langley, 60 hits on the snakes. To add scientific veracity, the researchers used a similar-sized chunk of black rubber hose they found alongside the road as a cross-check.

The hose got it only 30 times.

Langley said that 60 percent to 70 percent of the truckers swerved their vehicles to do in the varmint, far greater than the number of other drivers observed. The truckers' tenacity ran true whether the snake was placed on the yellow dividing median strip and laid out in the direction of the traffic flow or just laid out in the traffic lane, as if it were trying to get across the highway.

Langley said he was intrigued by the issue of road kills, and suspected that some drivers deliberately killed wildlife.

He wanted to include box turtles, too, but he couldn't find an artificial one. He suspects drivers don't think much more of the new state reptile than they do snakes.

In the spirit of academic inquiry, Langley and the students, Hank Lipps of Wichita and John Theis of El Dorado, will present their findings in a paper before the Association for Psychological and Educational Research in Lindsborg Nov. 1.

Langley said he hopes to continue exploring traffic's, err...impact on wildlife, particularly if he can find a pliable turtle.

--The Wichita Eagle-Beacon, 18 October 1986

Terrible Toads

The prestigious New England Journal of Medicine recently published a report by Dr. Michael Hitt of the University of Arizona that cited the dangers of kissing toads. Dr. Hitt tells of a five-year-old boy who suffered an epileptic seizure after putting a Colorado River toad (Bufo alvarius, the most toxic toad in North America) in his mouth.

"Perhaps other cases of idiopathic [unexplained] childhood seizures may also be due to toad kissing," Hitt conjectures. His droll conclusion: "If it's true that one must kiss many toads to find one's prince, we recommend that they not be Bufos."

--Arizona Highways, Nov. 1986

(Submitted by Diane Eppinger, New York, New York)

FEATURE ARTICLES

Salamanders of Schermerhorn Park Cave, Kansas

by
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When one hears of the Ozark Plateau, southern Missouri, northern Arkansas and perhaps northeast Oklahoma come to mind. Little known, however, is the small Ozark area in southeastern Kansas. Flora and fauna found within the Ozarks know of no political boundaries. Therefore, it is easy to conclude that at least some of the species found in southwestern Missouri and northeastern Oklahoma should also be found in southeastern Kansas within its 55 square-mile Ozark topography.

Among the many Ozark life forms in Kansas are some plethodontid salamanders. Due to their requiring medial environmental temperatures and high humidity, they are often cave dwellers, especially during cold winter months and hot dry summer days. At present, 13 caves are listed in the Kansas Speleological Society files for Cherokee County, Kansas. Of those, only one, Schermerhorn Park Cave, exceeds 120 feet in length. Not surprisingly, this cave is home to at least three species of salamanders: the Grotto salamander (Typhlotriton spelaeus), the Cave salamander (Eurycea lucifuga), and the Dark-sided salamander (Eurycea longicauda melanopleura). Other species may exist at this location that are as yet unseen by me.

The surveyed length of Schermerhorn Park Cave is 2,566 feet, making it the fourth longest of the 528 currently known Kansas caves. The first few hundred feet of the cave includes a large entrance area leading to muddy wet stoopways and crawlways with a few short dry side-passages. The next several hundred feet consist of a cold, exhausting bellycrawl in thick soft mud and water to the cave's terminus with one cross passage. Salamanders have been observed by James Young and myself throughout the length of the cave, but as expected, most were concentrated within the first 300 feet of the cave where most of their food source is located (and outside food sources are nearby). Beyond the first section of the cave it is absolutely essential for an investigator to wear a full-body wetsuit and carry three sources of waterproof lighting. Hypothermia is a problem here even with a wetsuit. Also, the passage is prone to flooding as evidenced by storm water debris left in ceiling pockets.

It must be mentioned that probably only a fraction of the total populations of these species have been observed by us, because the primary object of our cave visits by Jim and I were to map the cave. No stones were turned; no cracks were checked. The numbers listed below are merely the result of casual observation. Future visits to the cave for photography may yield higher numbers and perhaps other species, one of which, the slimy salamander (Plethodon glutinosus), has been seen very close to the Kansas state line in both Missouri and Oklahoma.

In the three survey trips to the cave (7 December 1985, 20 July 1986, and 6 September 1986), the following populations were seen of each

species. Descriptions of each are included for those readers not familiar with them.

Cave Salamander--Four specimens were observed at -70 feet, -200 feet, -300 feet and at -2400 feet. This species was identified by its orange-red back and sides with small black spots and a pale belly. Specimens were six to seven inches in length and had 14 costal grooves. Tails were about 60% of total body lengths.

Dark-sided Salamander--Nearly 20 specimens ranging in size from three to six inches were observed in the cave, most in the front section but seen throughout the cave passage. Identification can be difficult because color markings resemble those of other closely related species, especially the greybelly salamander (Eurycea multiplicata griseogaster). The dark-sided salamander is characterized by a yellow back with small black spots, some of which form two nearly-complete lines that trim the yellow along the length of its body. The lower sides are pink or purple with small pale spots. It may reach seven inches in length and has 14 costal grooves. Its tail is about 60% of its total body length. The greybelly has similar coloration, but is only 4.5 inches maximum, has 19-20 costal grooves and its tail is less than 55% of total body length.

Grotto Salamander--The three specimens seen were all larvae ranging in size between 1 and 2.5 inches in the cave stream at -90 feet, -250 feet, and at -2300 feet. This was formerly known as the Ozark blind salamander, but is in fact blind only as an adult. This is partly the reason this may be the most interesting of these three lungless species. Adults are white, pale pink, or pale purple, up to 5.5 inches long, have 17-20 costal grooves, with tails approximately 50% of total body length. They are Kansas' only amphibians that undergo the following transformation: they hatch from eggs with functional eyes, and become dark gray or black in a few weeks. In the months following, they grow slowly, eventually losing their pigment. Their eyes atrophy, becoming essentially worthless. Some adults are neotenic; thus their red-brown gills are retained through adulthood. Most, however, lose their gills and begin "breathing" through their moist skin. This offers the salamander an option it did not have as a larva--it may continue to inhabit the cave stream or it may live out of the water within the cave. Though adults were not seen during the mapping trips, they surely exist in the cave.

Schermerhorn Park Cave is a home to rare species of salamanders in Kansas, and it should be protected from groundwater pollution and over-visitation and/or abuse from the general public. Apparently at some time in the past an attempt was made to gate the cave. Perhaps it would be a good idea to make another try, with entry limited to those who study its unique-to-Kansas life forms.



NEW RECORDS OF AMPHIBIANS AND REPTILES IN KANSAS FOR 1986

by
Joseph T. Collins
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The University of Kansas
Lawrence, Kansas 66045

The new county or maximum size records listed below are those accumulated or brought to my attention since the publication of records for 1985 (Collins, 1986). 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" (Collins, 1982). 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 a better understanding of their biology. This report is my twelfth in a series that has appeared annually since 1976.

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 (1982). Any information of this nature not backed by a voucher specimen is speculation. All new records listed here are presented in the following standardized format: common and 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 of Collins *et al.* (1982).

The records listed below are deposited in the herpetological collection of the Museum of Natural History, The University of Kansas, Lawrence (KU). I am most grateful to members of the Kansas Herpetological Society, and to personnel of the Kansas Biological Survey and Kansas Fish and Game Commission, who spent many hours in search of some of the specimens reported herein. Support for field work, that led to discovery of some of the specimens listed below, was given via research grants from the Kansas Nongame Wildlife Advisory Council (Chikadee Checkoff Funds). Special thanks are due to Philip S. Humphrey, Director, and William E. Duellman, Curator, of the Museum of Natural History, The University of Kansas.

NEW COUNTY RECORDS

WOODHOUSE'S TOAD (Bufo woodhousii woodhousii)

FRANKLIN CO: NE part of Ottawa, Sec. 25, T16S, R19E, 26 May 1986, E.D. Hooper, Jr. (KU 206196).

WESTERN CHORUS FROG (Pseudacris triseriata triseriata)

MCPHERSON CO: 2.4 km N and 8 km W McPherson, Sec. 17, T19S, R4W, 18 May 1986, J.T. Collins and J. Whipple (KU 204801).

PLAINS NARROWMOUTH TOAD (Gastrophryne olivacea)

CLOUD CO: Sec. 8, T7S, R5W, 8 June 1986, W. Hoffman (KU 206032).

COMMON SNAPPING TURTLE (Chelydra serpentina serpentina)

BUTLER CO: T27S, R6E, 11.2 km S US Rt. 54, 3 June 1986, J. Shumard (KU 206075). NEMAHA CO: ca 14.4 km N Seneca on Rt. 63, Sec 11, T1S, R12E, 18 May 1986, A. Kamb (KU 206258).

ALLIGATOR SNAPPING TURTLE (Macroclemys temminckii)

MONTGOMERY CO: Onion Creek, Sec. 9, T15E, R34S, 10 April 1986, C.D. Blex (KU 204668 - scute from carapace; KU color slide 7406).

YELLOW MUD TURTLE (Kinosternon flavescens flavescens)

MITCHELL CO: ca 25.6 km SSE Beloit, Sec. 29, T9S, R6W, 14 June 1986, A. Kamb and S. Kamb (KU 206259). SEDGWICK CO: 3.2 km N and 3.2 km W Garden Plain, 19 May 1986, J. Shumard (KU 206076).

MISSOURI COOTER (Chrysemys floridana hoyi)

SEDGWICK CO: E of Wichita city limits, 10 July 1975, collector unknown (KU 206486).

WESTERN PAINTED TURTLE (Chrysemys picta bellii)

MCPHERSON CO: 4.8 km N Canton, Sec. 3, T19S, R1W, 9 May 1986, J.T. Collins (KU 204817). RICE CO: 1.3 km E Barton County Line on U.S. Rt. 56, Sec. 32, T19S, R10W, 9 May 1986, J.T. Collins (KU 204818). THOMAS CO: 14.4 km N and 3.2 km W Gem, Sec. 6, T6S, R32W, 30 May 1986, A. Kamb and S. Kamb (KU 206263).

RED-EARED SLIDER (Chrysemys scripta elegans)

SEDGWICK CO: Lake Afton, 3.2 km S and 5.6 km W Goddard, 29 March 1986, J. Shumard (KU 206077).

OUACHITA MAP TURTLE (Graptemys pseudogeographica ouachitensis)

SHAWNEE CO: just SW Silver Lake in Kansas River, Sec. 19, T11S, R14E, 31 August 1986, J. Oshell (KU 206432).

ORNATE BOX TURTLE (Terrapene ornata ornata)

NEMAHA CO: ca 6.4 km SE Wetmore, Sec. 29, T5S, R14E, 8 May 1986, A. Kamb (KU 206260). SHERIDAN CO: 12.8 km W and 2.4 km N Selden, Sec. 6, T6S, R30W, 31 May 1986, A. Kamb and S. Kamb (KU 206261). SMITH CO: 3.2 km WNW Cedar, Sec. 34, T4S, R15W, 7 June 1986, W. Hoffman (KU 206078).

MIDLAND SMOOTH SOFTSHELL (Trionyx muticus muticus)

ELLSWORTH CO: Kanopolis Reservoir, Bluff Creek View Area, 8 June 1986, W. Dickerson (KU 206036).

PRAIRIE SKINK (Eumeces septentrionalis)

BROWN CO: ca 19.2 km SE Hiawatha, Sec. 13, T4S, R15E, 26 May 1986, A. Kamb and S. Kamb (KU 206278). EDWARDS CO: E side Arkansas River, Sec. 5, T24S, R18W, 16 May 1986, L. Miller (KU 206221). JACKSON CO: ca 11.2 km S Soldier, Sec. 15, T7S, R13E, 26 May 1986, A. Kamb and S. Kamb (KU 206280). NEMAHA CO: ca 2.4 km NW Bern, Sec. 7, T1S, R13E, 18 May 1986, A. Kamb (KU 206282).

- PRAIRIE-LINED RACERUNNER (Cnemidophorus sexlineatus viridis)
 CLOUD CO: ca 17.6 km SSE Concordia, Sec. 25, T7S, R3W, 10 May 1986, A. Kamb (KU 206285). MITCHELL CO: ca 24 km S Beloit, Sec. 30, T9S, R7W, 3 May 1986, A. Kamb (KU 206290).
- WESTERN SLENDER GLASS LIZARD (Ophisaurus attenuatus attenuatus)
 SHAWNEE CO: below Perry Lake Dam, June 1984, B.J. Clark (KU 206487).
- NEW MEXICO BLIND SNAKE (Leptotyphlops dulcis dissectus)
 COMANCHE CO: Sec. 31, T33S, R17W, 3 May 1986, L. Miller (KU 206226).
- EASTERN HOGNOSE SNAKE (Heterodon platirhinos)
 KIOWA CO: Anchor-D Ranch HQ, Sec. 2, T30S, R16W, 26 April 1986, K.L. Brunson (KU 204784).
- PRAIRIE RINGNECK SNAKE (Diadophis punctatus arnyi)
 HARPER CO: Sec. 1, T35S, R5W, 31 May 1986, L. Miller (KU 206230). MITCHELL CO: ca 24 km S Beloit, Sec. 30, T9S, R7W, 3 May 1986, A. Kamb (KU 206297). OSBORNE CO: ca 16 km NW Osborne, Sec. 31, T6S, R13W, 14 June 1986, A. Kamb and S. Kamb (KU 206299). RUSH CO: Sec. 10, T16S, R16W, 9 May 1986, K.J. Irwin (KU 204837).
- PLAINS BLACKHEAD SNAKE (Tantilla nigriceps)
 RUSH CO: Sec. 10, T16S, R16W, 9 May 1986, K.J. Irwin (KU 204870).
- ROUGH GREEN SNAKE (Opheodrys aestivus)
 ALLEN CO: 0.4 km S Humbolt, September 1986, T. Taggart (KU 206492).
- EASTERN YELLOWBELLY RACER (Coluber constrictor flaviventris)
 ALLEN CO: Humboldt, 30 March 1986, T. Taggart (KU 206170). NORTON CO: ca 20.8 km WSW Norton, Sec. 9, T3S, R25W, 31 May 1986, A. Kamb and S. Kamb (KU 206305). SEDGWICK CO: Wichita, 21 May 1986, J. Shumard (KU 206171).
- GREAT PLAINS RAT SNAKE (Elaphe guttata emoryi)
 CLOUD CO: ca 4.8 km N Glasco, Sec. 36, T7S, R5W, 3 May 1986, A. Kamb (KU 206308). GREENWOOD CO: Sec. 3, T28S, R12E, 25 October 1986, J. Shumard (KU 206488). MITCHELL CO: ca 5.6 km WSW Beloit, Sec. 13, T7S, R8W, 10 May 1986, A. Kamb (KU 206310). REPUBLIC CO: ca 8 km S Belleville, Sec. 33, T3S, R3W, 10 May 1986, A. Kamb (KU 206311).
- BLACK RAT SNAKE (Elaphe obsoleta obsoleta)
 DICKINSON CO: just SW Dillon on Ks. Rt. 4, Sec. 1, T16S, R2E, 9 May 1986, J.T. Collins (KU 204808). JACKSON CO: SE of Mayetta, Sec. 36, T8S, R15E, 24 May 1986, J.T. Collins and S.L. Collins (KU 204810). NEMAHA CO: 2.4 km W Ontario, Sec. 33, T5S, R14E, 24 May 1986, J.T. Collins and S.L. Collins (KU 204809).
- BULLSNAKE (Pituophis melanoleucus sayi)
 MITCHELL CO: ca 17.6 km SSE Beloit, Sec. 25, T8S, R8W, 3 May 1986, A. Kamb (KU 206319). OSBORNE CO: ca 27.2 km S Osborne, Sec. 12,

T10S, R13W, 14 June 1986, A. Kamb and S. Kamb (KU 206320).

COMMON KINGSNAKE (Lampropeltis getulus)

JACKSON CO: ca 16 km N Delia, Sec. 3, T8S, R13E, 26 May 1986, A. Kamb and S. Kamb (KU 206313).

MILK SNAKE (Lampropeltis triangulum)

BARTON CO: Sec. 21, T16S, R11W, 1 May 1986, K.J. Irwin (KU 204841).

● WESTERN RIBBON SNAKE (Thamnophis proximus)

BOURBON CO: Bourbon County State Lake, 9 August 1986, T. Taggart and K. Comcowich (KU 206496). SEDGWICK CO: 3.2 km N and 3.2 km W Garden Plain, 19 May 1986, J. Shumard (KU 206181).

WESTERN PLAINS GARTER SNAKE (Thamnophis radix haydenii)

SEDGWICK CO: Wichita, 14 July 1986, J. Shumard (KU 206497).

RED-SIDED GARTER SNAKE (Thamnophis sirtalis parietalis)

MITCHELL CO: ca 16 km SE Beloit, Sec. 21, T8S, R6W, 1 September 1986, A. Kamb (KU 206501). RUSH CO: Sec. 10, T16S, R16W, 9 May 1986, K.J. Irwin (KU 204867).

LINED SNAKE (Tropidoclonion lineatum)

BARTON CO: Sec. 21, T16S, R11W, 1 May 1986, K.J. Irwin (KU 204869). BROWN CO: ca 9.6 km SSE Fairview, Sec. 25, T3S, R15W, 26 May 1986, A. Kamb and S. Kamb (KU 206327).

TEXAS BROWN SNAKE (Storeria dekayi texana)

PRATT CO: Ninnescah River Wildlife Area, 10 March 1986, T. Dillenbeck (KU 204788).

GRAHAM'S CRAYFISH SNAKE (Regina grahamii)

NEOSHO CO: W of Chanute on Ks. Rt. 39, 0.8 km E Wilson County Line, 12 April 1986, J.T. Collins and S.L. Collins (KU 204814). SEDGWICK CO: Wichita, W side Watson Park, 20 April 1986, J. Shumard (KU 204787).

● NORTHERN WATER SNAKE (Nerodia sipedon sipedon)

ALLEN CO: Sec. 3, T26S, R21E, 12 April 1986, T. Taggart (KU 206178). HODGEMAN CO: ca 12.8 km W Jetmore at Buckner Creek, Sec. 10, T23S, R25W, 24 May 1986, A. Kamb and S. Kamb (KU 206317).

OSAGE COPPERHEAD (Agkistrodon contortrix phaeogaster)

ELK CO: E of Howard, 0.8 km S of entrance to Polk Daniels Lake, 6 September 1986, L. Miller (KU 206504).

TIMBER RATTLESNAKE (Crotalus horridus)

WABAUNSEE CO: ca 8 km SW Alma, Sec. 25, T12S, R9E, 26 July 1986, A. Kamb and S. Kamb (KU 206331).

PRAIRIE RATTLESNAKE (Crotalus viridis)

BARTON CO: 8 km N Great Bend, Sec. 34, T18S, R13W, 3 May 1986, W. Hoffman (KU 204872).

NEW MAXIMUM SIZE RECORDS

CENTRAL NEWT (Notophthalmus viridescens louisianensis)

CHEROKEE CO: NE jct Spring River and Turkey Creek, Sec. 36, T33S, R25E, 2 May 1984, S. Reilly and D.M. Hillis (KU 204158). Snout-vent length = 52 mm (2 inches); total length = 110 mm (4 5/16 inches). Female.

COMMON SNAPPING TURTLE (Chelydra serpentina serpentina)

BARTON CO: Cheyenne Bottoms Wildlife Refuge, W end Inlet Canal, E of CBWR HQ, 7 November 1985, W. Hoffman (KU 204880). Upper shell length = 360 mm (14 1/8 inches). Weight = 32 pounds (71.7 kg). Female.

ALLIGATOR SNAPPING TURTLE (Macroclemys temminckii)

LABETTE CO: 4.8 km W Oswego, Labette Creek, April 1938, J. Gearhart, R. Stice, and H. Stice (KU color slide 7592). Upper shell length unknown. Weight = 132.5 pounds (296.8 kg). Male.

YELLOW MUD TURTLE (Kinosternon flavescens flavescens)

BARTON CO: Cheyenne Bottoms Wildlife Refuge, 4.8 km N HQ, 10 May 1986, W. Hoffman (KU 204882). Upper shell length = 135 mm (5 1/4 inches). Male.

WESTERN PAINTED TURTLE (Chrysemys picta bellii)

BARTON CO: Cheyenne Bottoms Wildlife Refuge, Inlet Canal at jct Pools 1, 2 and 5, 17 May 1986, D. Reber (KU 204884). Upper shell length = 197 mm (7 3/4 inches). Female.

* MIDLAND SMOOTH SOFTSHELL (Trionyx muticus muticus)

ELLSWORTH CO: Kanopolis Reservoir, Bluff Creek View Area, 8 June 1986, W. Dickerson (KU 206036). Upper shell length = 267 mm (10.5 inches). Female.

FIVE-LINED SKINK (Eumeces fasciatus)

FRANKLIN CO: 6.4 km W and 0.8 km N Centropolis, Sec. 20, T15S, R18E, 20 April 1986, E.D. Hooper, Jr. (KU 206198). Snout-vent length = 76 mm (3 inches); total length = 203 mm (8 inches). Female.

PRAIRIE SKINK (Eumeces septentrionalis)

JACKSON CO: ca 11.2 km S Soldier, Sec. 15, T7S, R13E, 26 May 1986, A. Kamb and S. Kamb (KU 206280). Snout-vent length = 87 mm (3 3/8 inches); total length = 224 mm (8 3/4 inches). Female.

NEW MEXICO BLIND SNAKE (Leptotyphlops dulcis dissectus)

CLARK CO: Sec. 6, T31S, R22W, 7 June 1986, L. Miller (KU 206223). Total length = 270 mm (10 5/8 inches). Female.

WESTERN WORM SNAKE (Carphophis amoenus vermis)

DONIPHAN CO: along Missouri River, ca 19 km N Atchison County line, 2 May 1986, R. Powell et al. (KU 206169). Total length = 366 mm (14 3/8 inches). Female.

WESTERN HOGNOSE SNAKE (Heterodon nasicus)

LOGAN CO: 8 km W and 1.6 km S Elkader, 20 June 1984, S. Roth and J. Roth (KU 206172). Total length = 864 mm (34 inches). Female.

EASTERN HOGNOSE SNAKE (Heterodon platirhinos)

RENO CO: within city limits of Hutchinson, 5 June 1983, H. Gregory (KU 204174). Total length = 1067 mm (42 inches). Female.

DIAMONDBACK WATER SNAKE (Nerodia rhombifer rhombifer)

DOUGLAS CO: NW peninsula of Baldwin City Lake, ca 2.4 km SE Baldwin, 25 March 1986, G. Beilfuss (KU 204483). Total length = 1410 mm (55 1/2 inches). Female.

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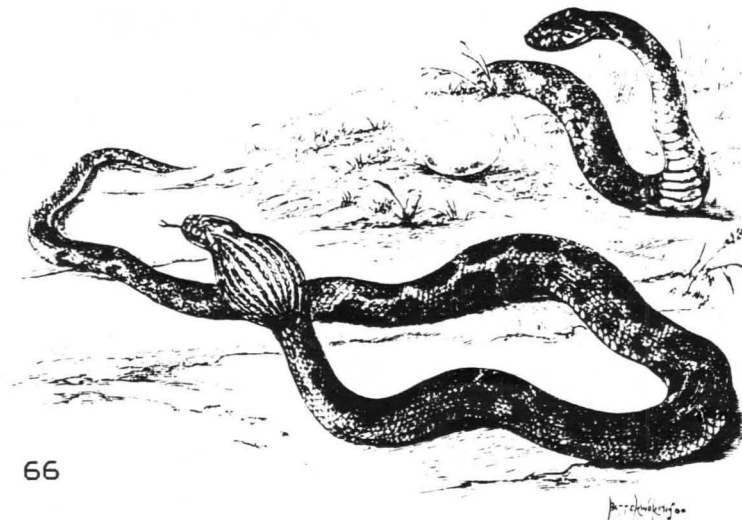
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If Its December It Must Be ... Time for Frogs?

by
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December 7th, 1986. The 46th anniversary of the attack on Pearl Harbor, a Saturday, and the day the frogs came out. Or so it seems.

In Sumner County, Kansas, 6.4 miles west of Oxford, Donald Nelson encountered an adult bullfrog (Rana catesbeiana) heading north across US Highway 160, with the air temperature at 38 degrees F. The frog was captured by Nelson's children, placed in a shoe box under a wet towel (naturally) and brought to my home for futher study. Or more likely, a future meal.

Also that day, a truck arrived at the local floral shop in Oxford bearing plants from a nursery near Fort Lauderdale, Florida. Shop owner Kay Dee Potucek discovered a treefrog hiding among the philodendrons. This frog was delivered to me and initially caused some difficulties with identification. However, a call to Joseph T. Collins at the Museum of Natural History at The University of Kansas, and some close inspection, revealed the stowaway to be a young Cuban Treefrog (Osteopilus septentrionalis), a species native to the West Indies, then introduced to Florida, and now to Sumner County, Kansas.

KHS members interested in doing so are encouraged to check with local nurseries and plant stores as treefrogs and occasionally anoles and geckos show up amid shipments of house plants from Florida or other southern areas. I found six Green Treefrogs (Hyla cinerea) at a greenhouse in Winfield, Kansas, five years ago and saw three Brown Anoles (Anolis sagrei) that arrived in Wichita under similar conditions. It helps keep herpers on their toes.



BOOK REVIEWS

Turtles, Tortoises, and Terrapins. 1986. Fritz Jurgen Obst. St. Martin's Press, New York. Translated by Sylvia Furness.

This is perhaps the most informative and charming book about chelonians I have ever seen. It attempts to present a "total picture" of these reptiles to the broadest segment of the public. While there are artists as well as scientists in the field of natural history, it is very rare to find both talents interfaced with as high a level of achievement as presented here. Obst is obviously an artist and a scientist on his subject.

Many "cutting edge" comments are made throughout the text that reflect his involvement with the many and varied chelonian research efforts presently going on worldwide. He backs up his viewpoints with a thorough research and familiarity with the historical record--both recent and paleontological. Examples of personal observations, research, and fieldwork are included throughout, reflecting his personal involvement in the field and laboratory. The Appendix listing of extant chelonians (Classification) further reflects his progressive and evaluative views. For example, the Softshell terrapins (Trionychidae) conforms very closely with current North American opinion (example: Pritchard), but his classification of the tortoises (Testudinidae) incorporates several genera categories not so often seen in current literature. Unquestionably, as time goes on, subtle differences from one species of tortoise to the next begin to take on added significance when scrutinized in close detail (i.e., not everything under the shell is the same--or even close to being the same), especially in light of some of the more recent behavioral and life history studies. It will no doubt remain for further work, perhaps at the molecular level (electrophoresis, etc.), to shed more light in these classification relationships. I am pleased to see his thought-provoking opinions on the classification of chelonians, and on other topics in the text.

To write a book as a scientific treatise is difficult. To compile an organized attempt at informing a readership about the artistic aspects of a natural history topic is perhaps even more difficult. Obst has combined both in a highly readable and informative format that illuminates the best of both (and all too often, separate) worlds. I have often wondered what became of those early attempts by natural history writers (Lydekker, Brehms, Bent) to cast a spotlight on the total role of various taxa in the world. Many of these works were quite readable and, surprisingly, some still serve as information resources in today's more popular texts. It is the "gestalt" format, together with its highly organized and informative material, that, in my opinion, make this the most unique book on this subject to date.

Obst is obviously preaching the gospel of chelonians to a wider audience than the converted. If conservation issues are to be successful in any quarter, we have to inspire and inform the ignorant, even the highly accomplished and intelligent ignorant. One of the techniques for doing so is through the carefully selected range of excellent illustrations consisting of colorful photos, each of which are visually informative as well as attractive. The drawings and graphics present complex or potentially confusing information in an easily understood form. I believe that much effort must have gone into the development of this often overlooked consideration because while it is difficult to present

information graphically, it can be even more difficult to develop graphic techniques that maximize enlightenment. The illustrations and clear graphics are one of the book's strongest appeals. One added item regarding the illustrations: they not only are an end in themselves, but for someone attempting to "thumb through" and do a cursory review of the book, curiosity compels you to scrutinize further. The highly readable style captures the curious, contributing further to their curiosity. This loop is apt to repeat itself until the casual examiner is caught up in the need to learn more about these creatures that have played such a large role in both the human and environmental worlds. If conservation is to move forward, we need to convert many millions of our fellow earthlings. This book is one of the outstanding examples I have seen that would appear to do this. Another point--the book does not betray the sense of hopelessness or gloom which is often the reflection of a disenchanting or pessimistic author. Although Obst is obviously as concerned as any in the ranks of chelonian conservation, perhaps even more than most, his style is one of hope and he implies that, with the reader's help, we can succeed. This is the kind of attitude that is going to command the real support of the people in the future.

I'm a very visual person. For all the detailed scientific literature I've consulted, especially concerning physiology and comparative anatomy of reptiles, I found many of Obst's illustrations more clarifying. Because many of his readers will be visually oriented, and certainly the less informed reader in particular, his careful attention to visuals is a strong educational point throughout. For me personally, the book will be a frequent reference for individuals (both professional and lay) asking questions on a wide variety of chelonian topics. It will be a resource of first choice in the classes I teach on herpetology.

Finally, I have to congratulate the efforts of the translator who obviously did a magnificent job in promoting the intent as well as accuracy of the content on behalf of the author.

I highly recommend this book on its organizational, scientific, artistic, illustrative and graphic, and stylistic achievements.

--Ray Pawley, Curator
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A Petkeeper's Guide to Reptiles and Amphibians. 1986. David Alderton, Salamander Books, Ltd. 117 pages, illustrated.

KHS editor John Simmons said it best recently when he claimed that he hadn't seen a good herp-keeping book since Karl Kaufeld was writing them, until Chris Mattison's The Care of Reptiles and Amphibians came to light [see KHS Newsletter No. 63:19-20]. Now another book has appeared that seems to actually be worth the cover price for those interested in keeping herps at home.

This is a small book (only 117 pages), yet it is packed with useful

information and high quality color photographs and/or color diagrams on every page. Though oriented mainly towards the beginning herp keeper, enough detailed information is presented to be of interest even to old hands at herp raising. Much of the book is devoted to housing herps in properly heated and lit environments, and a good emphasis is placed on breeding. Another interesting chapter outlines the rearing of food cultures for herps, including flies, fruit flies, whiteworms, Daphnia, etc.

The chapter on herp health problems is also good, especially for so brief a book. A little more could have been said regarding treatments and medications, but as I have said, it is a small publication.

Finally, the most commonly available herp species are covered individually with information of distribution, size, diet, proper housing conditions, hibernation hints, sexual dimorphism, and breeding tips. This section is good and reflects the herps most commonly available to Europeans (the author is English). Mention is made of the legal status of certain protected herps in England, notably the Mediterranean tortoises. However, under the account of the Indigo Snake, Drymarcon corais, it is said that the Florida race (Drymarcon corais couperi) is the most desirable. Mr. Alderton fails to mention that this subspecies is federally protected as an endangered species and that Indigo Snakes of both subspecies native to the United States are protected by state law as well. A Mountain King Snake is also listed as a Milk Snake in one photo, however, the difference is slight enough to be allowed by all but the "tri-color" purists reading it (give 'em a break--the most colorful herp in Europe is a fire salamander, after all).

By and large, this is a good little book. Brief, it is true, but well worth the \$3.98 price I paid for it. It should be required reading for every kid buying anoles or newts down at the pet shop, if only to get them started off in the right direction. And, it is a refreshing break from the usual cheap herp care books that offer little more than peculiar photographs of the misidentified herps that are normally on sale in pet shops. Indeed, pet shop owners and herp dealers themselves would do well to read this book, prior to doing business.

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