

*Is this your LAST ISSUE of the*

KANSAS HERPETOLOGICAL SOCIETY NEWSLETTER ???



Look carefully at the mailing label on the outside of this newsletter. If there is a RED MARK on the label, it means we have not yet received your 1986 KHS Dues, and thus this will be the last KHS Newsletter you get until we do.

Please pay now. Dues are \$5.00 regular, \$15 contributing in the U.S., \$8.00 and \$15.00 outside the U.S.

Make check or money order payable to KHS and send your dues to:

Larry Miller  
KHS Secretary Treasurer  
524 North Osage Street  
Caldwell, Kansas 67022



June, 1986

ANNOUNCEMENTS

Arkansas River Summer Social

The weekend of 11-13 July, KHS members are invited to attend a Summer Social on the Arkansas River. The festivities will begin on Friday, 11 July, but concentrate on 12 July. The location will be at Island Recreation Park, 2.5 miles north and 0.5 miles east of Oxford, Kansas.

To find the place, arrive in Oxford on U.S. 160, turn north at the caution light, and proceed 2.5 miles to "Island Road." Go 0.5 miles on Island Road, pay \$1.00 at the bait stand (if open) and continue across two bridges to the social site. At least one keg of beer has been donated for Saturday, 12 July. Donations to help cover the cost of the beer to the doner will be appreciated. Come prepared to camp. There will be swimming, fishing, herping and, of course, socializing.

For more information about this first-of-a-lifetime event, contact:

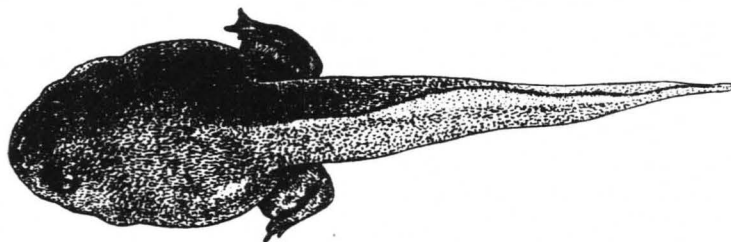
Marty Capron  
Box 542  
Oxford, Kansas 67119  
Telephone (316) 455-3471

10th International Herpetological Symposium in San Antonio

Lovely, enchanting San Antonio, Texas, will be the site of the 10th International Herpetological Symposium on Captive Propagation and Husbandry from 25-28 June 1986. There will be 25 technical papers presented plus a host of other special events. The San Antonio Zoo, which has one of the finest collections of reptiles and amphibians in the United States, will host a special tour and banquet supper.

Registration is \$69 if paid before 30 May, \$85 thereafter. Obtain registration materials from Richard A. Hahn, Symposium Series Director, Zoological Consortium, Inc., 13019 Catocin Furnace Road, Thurmont, Maryland 21788. Please note that the registration fee includes a copy of the proceedings to be published in late 1986.

Back issues of the proceedings from Reptile Symposiums 4-9 are available for \$22.50 each plus \$2.00 handling and postage each. Make check or money order payable to Reptile Symposium Proceedings, 13019 Catocin Furnace Road, Thurmont, MD 21788.



### New Box Turtle T-Shirts

An all new t-shirt design, an attractive side-view of a box turtle with the words:

Caldwell, Kansas  
Home of the...  
Ornate Box Turtle  
"State Reptile of Kansas"

printed on it are now available in brown or gold from Smith's Variety Store, Caldwell, Kansas 67022. Adult sizes are \$6.75, children \$6.00. Add \$1 postage per shirt if you can't make it to Caldwell to pick up your order in person.

### Inventory Time Again

Inventories are requested for inclusion in the 1986 Inventory of Live Reptiles and Amphibians in Captivity. The information requested should be current as of 1 January 1986, and should include:

1. A complete inventory of species held, listed as male (1.0), female (0.1) or unknown (0.0.1).
2. A list of species which bred and produced young during 1985, and numbers of young for each species.
3. Miscellaneous breeding information not previously submitted.
4. Possible longevity records (give years, months, days the specimen has been in captivity and indicate whether or not it is still living).
5. A listing of any publications relating to reproduction in reptiles, especially how-to articles

Submit all material to: Frank L. Slavens, P.O. Box 30744, Seattle, Washington 98103.

### Herpetofauna of Costa Rica

The Society for the Study of Amphibians and Reptiles (SSAR) has announced plans to issue an important new book this September, written by Jay Savage and Jaime Villa, entitled Introduction to the Herpetofauna of Costa Rica/Introduccion a la Herpetofauna de Costa Rica. The book will be about 250 pages with 15 figures, 8.5 x 11 inches, clothbound. The price will be \$30, but SSAR members can purchase it before 1 September 1986 for only \$25.

The herpetofauna of Costa Rica is one of the largest and most diverse in the world, and this book will be the first to comprehensively cover all the native species. The book will be in both English and Spanish and will contain keys to identification of species, an extensive annotated bibliography, and a comprehensive index.

Order from Douglas H. Taylor, Department of Zoology, Miami University, Oxford, Ohio 45056. Make check payable to "SSAR." The price includes shipping.

### Herp Book Catalogs Available

An incredible selection of herp books is available from Herpetological Search Service and Exchange. They carry such hard-to-find titles as A Field Guide to the Snakes of South Vietnam, Amaral's A Color Iconography of Brazilian Snakes, and more. The catalog also includes other Natural History subjects. For a catalog, send \$1.00 for postage and handling to Herpetological Search Service, 117 East Santa Barbara Road, Lindehurst, New York 11757.

### Sedgwick County Zoo Says "Go Take a Hike..."

The Summer Session for the Sedgwick County Zoo Nature Trail is open 1 April to 30 November, from 8:00 a.m. to 5:00 p.m. every day of the week. The cost is just \$1.00 for adults, half that for children, and beginning 1 May, guided tours will be available if scheduled one week in advance. The Nature Trail entrance is 0.5 miles east of the intersection of Ridge Road and 13th Street on the north side of the road, in Wichita. For further information, call (316) 942-3601.

### Everything You Always Wanted a Herp On--And More

Herptoons sells a variety of herp t-shirts, note paper, and note cards featuring such cuddly creatures as an Eastern Diamondback Rattlesnake and a Nile Monitor Lizard. For a price list of their many unusual items, write Herptoons, P.O. Box 3535, Lake City, Florida 32056-3535.

### Official KHS T-Shirts Can Now Be Ordered

The KHS will be ordering official T-shirts later this summer, that is, if enough people are interested. The shirts will be light yellow with a high quality design of the famous Ornate Box Turtle in brown. The drawing is by Martin Capron of Oxford, Kansas.

The shirts will sell for \$8.00 each, and all profits will go to the KHS. The \$8.00 will cover mailing the shirts anywhere in the United States. For orders outside of the United States, please add another \$2.00 to cover postage.

The shirts will be available in adult sizes: small, medium, large, and extra large. They will also be available in child sizes: small, medium, and large, at the same price. They will be a very high quality shirt.

Send your orders along with a check or money order to cover the full cost to: The Kansas Herpetological Society, c/o Larry Miller, Secretary/Treasurer, 524 North Osage Street, Caldwell, Kansas 67022. MAKE CHECKS PAYABLE TO: The Kansas Herpetological Society.

Your order must be received no later than 15 July 1986. The order

for the shirts will be placed at that time. the shirts will then be mailed to you sometime around the first of September 1986. The KHS must receive at least 48 total orders to have the shirts printed. Your check will be returned in the event that less than 48 orders are received.

#### Herpetological Society Meeting Reminder

The program is now out for the joint meeting of the Society for the Study of Amphibians and Reptiles and Herpetologists' League annual meeting in Springfield, Missouri at Southwest Missouri State University this summer. The dates are 10-15 August 1986. Registration is only \$45 in advance (\$35 for students), and the University is making dorm rooms available for an incredibly low \$10/person per night. There will be a beer-wine social on Sunday night (10 August), a symposium on the behavioral ecology of salamanders, and a conference on venomous snakebites in zoos.

The 10th annual Regional Herpetological Society Conference will be concerned with the role of regional societies in public education. Multiple-screen slide shows on Amphibians of the Appalachians and Herpetologists Then and Now are also scheduled. For more information or registration materials, contact: Don Moll or Robert Wilkinson, Department of Biology, Southwest Missouri State University, Springfield Missouri 65804. Telephones (417) 836-4882; 836-5062, or 836-5304.

#### KHS 1986 SPRING FIELD TRIP TO CHEYENNE BOTTOMS

Thirty to forty KHS members and friends converged on Barton County, Kansas, the weekend of 18-20 May for the annual spring field trip. They came from all parts of Kansas, and even a few other places! They were there to help with a major survey of "The Bottoms" that was ending that week.

The weather was quite warm when some of the first groups started arriving around noon on Friday. Snakes and turtles were rather common. However, a major change hit by late afternoon. The wind shifted to the north and really picked up. The temperature had dropped to the low forties by Saturday morning. What a start for the weekend!

The group made the best of what they had to work with on Saturday. The sun was, at least, showing itself once in a while. Animals such as common snapping turtles, water snakes, and a Massasauga now and then started showing up. The temperature was even getting into the low sixties by noon.

About 25 or so of the group got together right after lunch for an attempt to capture some fish, turtles, and other water critters with a 100 foot seine. The seine was brought out and everyone was about ready, except this all required getting wet and muddy. Not everyone rushed into the water to help.

At last there was at least a crew holding the seine. They showed that the water was not all that deep, so a few others started going in to help. All of those that went in the water turned out to be a big help. Some, like Marzi Karch and Mary Kate Baldwin, even put on quite a show as they attempted to get out of the mud. Of course, everything was captured on slide film for future meetings.

The seining operation was supervised by our KHS President, Marty Capron, and a few others from the safety of the dry bank. However, even with the dedicated hard work of those in the water and the good supervision from the shore, no turtles were collected, only a few carp.

The KHS Executive Committee, consisting of Martin Capron, Larry Miller, and Olin Karch, held a meeting Saturday evening. Member John Simmons was absent. During that meeting, the following was approved for the KHS:

1. KHS dues for regular members will be increased from \$5.00 to \$6.00 for 1987.
2. The KHS will offer an official T-shirt with a drawing of an Ornate Box Turtle by Martin Capron for sale to members and other interested persons, for a total price of \$8.00 per shirt.

The Committee also discussed possible future field trips, membership, the 1986 annual meeting that is being planned for Lawrence, Kansas, in November, and a number of other related topics.

Saturday night was one of the coldest on record for May near Cheyenne Bottoms. The temperature had dropped to about 37 F by Sunday morning. Many of those that spent the night around the campfire did not seem to notice, however.

The attendance for the 1986 KHS Spring Field Trip was one of the best in a long time. It is hoped that future meetings will even bring more herpetologists and their families to the events. There is seldom a dull moment at any KHS event!

--Larry Miller  
KHS Secretary/Treasurer

#### RECENT LITERATURE OF INTEREST

The May issue of Science Digest has a brief article on sidewinder motion ("How does a sidewinder wind?" page 88). A far more interesting piece about crocodylians appeared in the November 1985 issue ("A Reptile Reviled," page 60). Although the article begins somewhat bitterly, the bulk of it is worthy.

Crocodylians once again stole the spotlight in the March issue ("A monster from the briny deep?" page 88). Although it was more positively written, it expresses a negative message.

The April 1986 edition of Sports Afield magazine contains a very good article that is of interest. "Year of the Rattlesnake," by George Harrison, depicts the life of a Timber Rattlesnake (Crotalus horridus) as he battles the seasons.

--Scott Hillard  
Pratt, Kansas

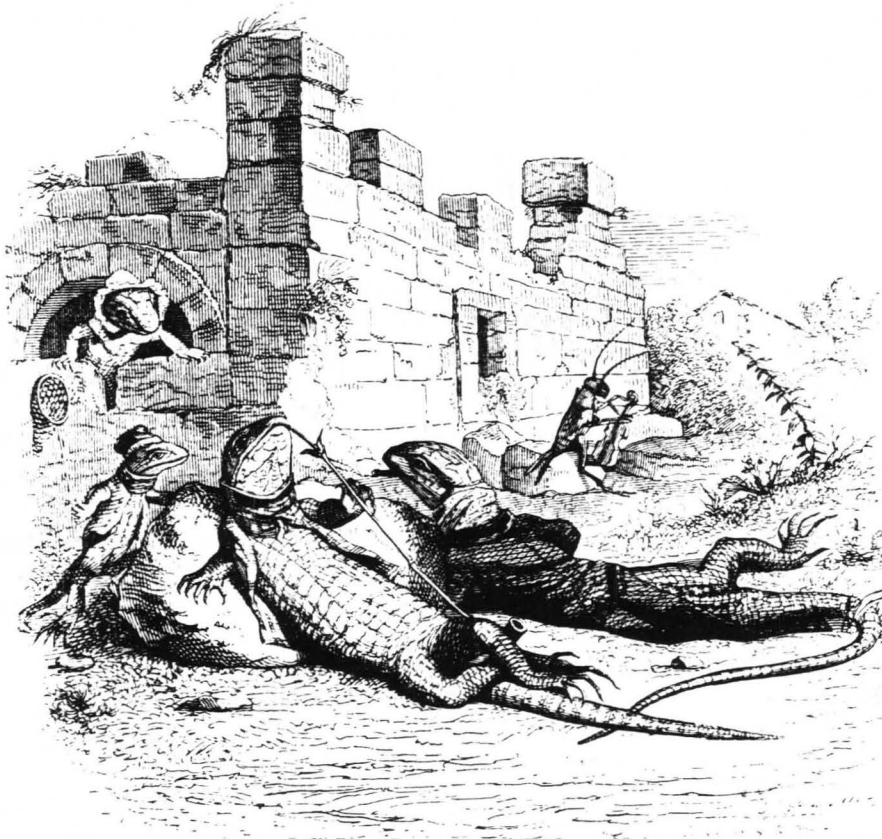
In the December issue of *Herpetologica* (volume 41, number 4) there is an article on "Demography of Green Snakes (*Opheodrys aestivus*) in Arkansas by KHS member Michael V. Plummer. These are interesting snakes, but they have not been studied much before. In the same issue is a review of the new book edited by Gerald Hoff, Frederic Frey and Elliot Jacobson, Diseases of Amphibians and Reptiles (Plenum Press, N.Y. 784 pp, \$97.50).

#### New Herp Publication Now Available

Volume 1, issue number 1, of The Herpetoculturist, published by the Reptile Breeding Foundation, "For the Advancement of Reptile and Amphibian Husbandry & Propagation" is now available. It is 30 pages in an 8.5 x 11 inch format, with nice illustrations and computer-generated titles and graphics. It looks quite promising. This first issue contains editorials explaining the aims and purpose of the publication, articles on breeding Bengal Monitors (*Varanus bengalensis*), the Kenyan Sand Boa (*Eryx colubrinus loveridgei*), a section of Herpetocultural Hints, an article on full-spectrum light sources, an article on the Sandfish (*Scincus scincus*), and cartoons. There is also a list of the publications of the Reptile Breeding Foundation, and a column on uses of the micro computer in the field of Herpetoculture.

Initially, this new journal will only come out twice a year, but at a bargain subscription rate of only \$5.00 per year. Eventually, they hope to become a quarterly publication.

For more information or to subscribe, contact: The Herpetoculturist, P.O. Box 1450, Picton, Ontario, K0K 2T0, CANADA.





A Special KHS Feature, compiled from newspapers, letters, conversations, and state documents, telling the amazing but true story of...

THE KANSAS STATE REPTILE

HOUSE BILL No. 3014

By Committee on Energy and Natural Resources

(By Request)

2-19

AN ACT designating the Terrapene ornata, Agassiz (ornate box turtle) as the official state reptile.

Be it enacted by the Legislature of the State of Kansas;

Section 1. The Terrapene ornata, Agassiz (ornate box turtle) is hereby designated as and declared to be the official reptile of the state of Kansas.

Sec. 2. This act shall take effect and be in force from and after its publication in the statute book.

"The Wildlife League of Pratt Community College is interested in endorsing the ornate box turtle..." (Scott Hillard, President, The Wildlife League).

"I grew up on a farm in Western Kansas and can remember picking up and admiring the ornate box turtle. I think you and the sixth grade class of Caldwell have a wonderful idea..." (Robert J. Lewis, Attorney).

"This is a wonderful idea! Kansas needs a state reptile and the Ornate box turtle is a fantastic choice for your state...be prepared for lots of work and letter writing...You CAN do it..." (Mrs. Carole H. Allen, "Ranger Rick's helper").

"I thought that you would like to know that I am also a good supporter of box turtles." (Ginger Barr, State Representative)

"...we have passed on news of your project to [other] organizations and encouraged them to support you..." (Terri Shuman and Jan Garton, Kansas Wildlife Heritage Month).

"If your suggestion is introduced in the Legislature I will feel inclined to support it." (Clint Acheson, State Representative)

"...I made arrangements to have a bill drafted. I have also made arrangements to have this bill introduced at the earliest possible time...I agree with you that in making this animal the official state reptile for the 125th birthday of Kansas, we will be giving the state a very special and unique gift." (Robert H. Miller, State Representative)

QUESTIONS: What happens if the State Mammal steps on the State Reptile? What if the State Reptile eats the State Insect, or the State Flower? (overheard somewhere in Kansas...).

"It doesn't appear that the sixth-graders' suggestion has anyone riled up. No one has countered yet with a favorite snake or lizard nominee... The legislators have a lot more important and demanding issues to deal with, but it wouldn't hurt them to listen to the pleas of a group of young future voters." (editorial, University Daily Kansan, Lawrence)

"Of all the nerve. The House Energy and Natural Resources committee had the gall last week to let a perfectly harmless, and relatively uncontroversial, bill die in committee...a little bit of the trust those 17 kids had developed in the state legislative system probably died right along with their bill." (editorial, University Daily Kansan, Lawrence)

"Box turtle aficionados are on the move again. The House Federal and State Affairs Committee Wednesday voted to introduce a bill to make the...ornate box turtle the state reptile..." (The Topeka Capital-Journal).

"Some House members criticized the bill as a bad precedent for consuming time, considering the youngsters' whims to designate all sorts of state objects." (The Wichita Eagle-Beacon)

"The 17 Caldwell Sixth Graders traveled to Topeka Monday, March 24, to once again lobby for the ornate box turtle...the "turtle bill" was introduced by Rep. Robert Miller and, after about 20 minutes of debate, passed the House 77-47...there was indication the bill would be supported in the Senate..." (The Caldwell Messenger).

"Working at the public library as I do, I have the opportunity to listen to and observe students as they do various class assignments. I do not remember a project that has created so much enthusiasm and interest as the Ornate Box Turtle Project... This has not been all fun and games. The students had to learn something about their government, due process, how to write a proper letter to state officials, and how to conduct themselves in an interview...in my opinion, someone is doing something right..." (Lois Beran, letter to the editor of The Caldwell Messenger).

"The problem seems to be that the 17 students from Caldwell are so cute and tenacious that the Legislature hasn't been able to turn down their bid...Some lawmakers are complaining that other worthy legislation has been slighted while the students' bill has been railroaded through... °We taught them that it's not always the best idea that wins, it's being in the right place at the right time--or knowing the right people' [said Rep. Mike O'Neal]. 'What they learned is if you ask for it, you'll get it--and that's not how the Legislature works," [said Rep. Elaine Hassler]. Rep. Dorothy Flottman...said some people in her district wanted to make the guitar the official state instrument. 'Maybe I should tell them to get some school children working on it...'" (The Wichita Eagle-Beacon).

"The Senate on Tuesday took time to ridicule a House member as it debated and gave tentative approval to a House-passed bill that would name the ornate box turtle as the state reptile. ...Sen. Joe Norvell...started poking fun at Rep. Kerry Patrick, by offering an amendment that would have named Patrick the state's reptile instead of the turtle...The April Fool's Day frivolity was prolonged by Sen. Robert Frey...who said he opposed Norvell's amendment for practical reasons. 'One reason we want the box turtle is that you can pick it up and pet it,' Frey said, noting that the turtle was something he could love. Frey said he was unsure if the same could be said for Patrick." (Lawrence Journal-World).

"The bill, backed by one of the most successful lobby groups in the Capitol this year--17 sixth-graders from Caldwell--was passed 77-47 by the House on March 24 ...Patrick was neither laughing nor commenting on the amendment that the senators, in fun, narrowly rejected...Sen. Bill Morris was...serious in his opposition. 'I see every 4th-, 5th- and 6th-grade teacher saying, "What's going to be our project for the Legislature this year?"' he said. 'I don't want to deal with a thousand suggestions from 6th-grade classes every year.' (The Wichita Eagle-Beacon).

#### HOUSE BILL No. 3113

By Committee on Federal and State Affairs

3-20

AN ACT designating the Terrapene ornata, Agassiz (ornate box turtle) as the official [Kansas] state reptile.

Be it enacted by the Legislature of the State of Kansas:

Section 1. The Terrapene ornata, Agassiz (ornate box turtle) is hereby designated as and declared to be the official reptile of the state of Kansas.

Sec. 2. This act shall take effect and be in force from and after its publication in the statute book.

"HOORAY! Kansas now has a state reptile -- or will have when Gov. Carlin signs the legislation that was sent to him on Wednesday -- and no more fitting subject could have been found: the friendly, interesting, thoroughly Kansan ornate box turtle. Many years from now, when future Kansans ponder the origins of their state symbols, they will have the sixth-grade students of Caldwell Elementary School to thank for this gift they have made to their native Kansas during its 125th anniversary of statehood.

"Some prune-faced legislators think this is a terrible sin, apparently because the students didn't consult with them beforehand, and because these "cute" kids were naive enough to think they could go to Topeka with a well-grounded, well-researched, hard-nosed proposal, and win -- the first time around! (This just isn't done in Topeka, saith the Poobahs of the House and Senate.)

"Fortunately, enough reasoned heads prevailed that the turtle bill passed both the House and Senate with comfortable margins, and is on its way to the governor's desk. Some sentiment is building to have the bill-signing ceremony in Caldwell, which would provide a splendid setting. While Larry Miller's sixth graders led the campaign for the turtle bill, the entire Caldwell Elementary student body contributed to the effort, as did the student's parents -- indeed, just about the entire community of Caldwell.

"Let's get one thing straight, though: The ornate box turtle will be Kansas' state reptile (assuming the governor signs the bill) not because the students were "cute." It will be because the students mobilized themselves into a potent lobbying bloc, writing literally hundreds of letters and appearing before anyone or any group that would listen to them, arguing their case cogently and persuasively in a way many less-successful legislators could take to heart.

"Thanks, students, for all your work, and for your splendid statehood birthday gift. It makes us all a little prouder to be Kansans." (editorial, The Wichita Eagle-Beacon, George Neavoll, Editorial Page Editor).

"...While the sixth grade class of Caldwell Elementary School beamed like new parents, a fashionably late Gov. Carlin signed the proclamation with a flourish and declared the ornate box turtle the official state reptile, Monday [14 April 1986], a little after noon.

"Carlin said the class learned a lesson that many legislators have yet to figure out.

"°They know something about lobbying that my staff and the hardened representatives have not learned," he said. °You not only learned a lot about the process but you also taught us a lot about the process, about following through.'

"Caldwell Superintendent of Schools Dave Monson agrees.

"°It's quite an accomplishment for that group. It's the smallest group we've got," he said.

"°I really think that was the best educational program I've ever seen occurring.'...

"What did [the students] learn about politics and politicians?

"°Some are good, some are bad. Some are funny and some aren't.'" (The Arkansas City [Kansas] Traveler).

\* \* \* \* \*

#### A Special Thank You to the KHS

The members of the 1986 Caldwell, Kansas, Sixth Grade Class wish to thank the KHS for the support given them as they worked to have the ornate box turtle named the official state reptile. The many KHS members that wrote letters, attended the Senate hearing, talked to the news

media, and gave advice were a great help. Without their support, success would have been much more difficult.

--The Caldwell Elementary Sixth  
Grade  
Larry Miller, Teacher  
20 May 1986

\* \* \* \* \*

Notice of Recognition and Merit  
to Larry Miller and His Sixth Grade Students

The Kansas Herpetological Society owes a debt of gratitude to Larry Miller and each of his Sixth Grade Students at Caldwell Elementary School for their hard work and efforts to have the Ornate Box Turtle designated as the Official State Reptile by the State of Kansas.

Their efforts have heightened public awareness of our state herpetofauna and furthered the general conservation of all our natural resources. It is my hope, as president of the KHS, that all of our members recognize and appreciate the effort put forth by these dedicated individuals and strive to let our state's population of Ornate Box Turtles flourish by guarding against any activities that could result in the wrongful harm or exportation of this species from our state. Let the box turtles remain in the wild, alive and well, for all Kansans to enjoy.

The efforts of Larry Miller and his students to secure the Ornate Box Turtle a place in Kansas history are truly commendable and worthy of recognition. For this the Kansas Herpetological Society extends its utmost appreciation for a job well done.

Martin Capron  
President  
Kansas Herpetological Society  
4 April 1986  
Oxford, Kansas

\* \* \* \* \*

And the Reaction of the Turtles?

"Julian Killman hasn't lost any fascination for this new pet turtle, even though the reptile tried to ruin his nose.

The 70-year-old Overland Park man was recovering today and cracking jokes, two days after Snaps the box turtle fastened its tiny jaws on the tip of Mr. Kilman's nose and hung on for three minutes.

"It was a weird accident," said Mr. Kilman, who figures he may be the only man in the Kansas City area to have dialed 911 with a reptile on his nose.

"The nose is OK now," he said, but it was another story when he was running around the house with the turtle at the end of the nose.

Mr. Kilman was studying the colors of Snaps, which he purchased two weeks ago, when the one-pound creature stretched its neck far enough to

bite him.

"I panicked," he said. "The more I panicked the more he stayed on."

When he phoned for help, a message came across the emergency radio scanners: "Ten-forty-nine (the code number for an ambulance request). Turtle on nose."

Snaps released its grip when Mr. Kilman sat still, a few seconds before a Johnson County paramedic team and police officer arrived.

"I still love this turtle," he said today. "My wife wanted me to throw it in the stream out back, but I said, 'Heaven's no. Box turtles can't swim.'" (The Kansas City Star)

### FEATURE ARTICLES

#### The Status of Black Rat Snakes in Sumner County, Kansas

The afternoon of 15 May 1986 Stacy Volavka, a sixth grade student at Caldwell Elementary School in Caldwell, discovered a large snake within the city limits of Caldwell, Kansas. The snake was captured and has been placed in the preserved collection at the Museum of Natural History of The University of Kansas in Lawrence, Kansas.

The snake exhibits all of the characteristics of the Texas Rat Snake (Elaphe obsoleta lindheimeri), a race not recorded from Kansas (Collins, 1982). Several other snakes have also been collected and observed in parts of Sumner and Harper counties of Kansas that show some of these characteristics.

Apparently, the population of rat snakes in Sumner and Harper counties in Kansas consists of intergrades between the Black Rat Snake (Elaphe obsoleta obsoleta) and the Texas Rat Snake (Elaphe obsoleta lindheimeri). This discovery of an intergrading population in these southern Kansas counties brings to question the status of Black Rat Snakes in the western part of their range in Oklahoma, as reported by Webb (1970). More research needs to be conducted on these snakes in Kansas and Oklahoma.

#### Literature Cited

Collins, J.T. 1982. Amphibians and reptiles in Kansas. Second edition. Univer. Kansas Mus. Nat Hist. Pub. Ed. Ser. 8:1-356.

Webb, R.G. 1970. Reptiles of Oklahoma. Stovall Mus. Pub., 2:1-370 pp.

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

## Longevity in a Captive Garter Snake

Garter snakes (Thamnophis sirtalis) have been reported to live up to ten years (H.S. Fitch, personal communication). This report indicates the longevity record is more than 14 years.

A female garter snake (Thamnophis sirtalis) was captured in Hunterdon County, New Jersey in 1971 and died in May of 1985. The snout-vent length at death was 62.2 cm. During this entire 14-year period the snake was housed in a glass and metal frame vivarium (51 x 31 x 28 cm) with a screen top in a room maintained at a temperature of 20°±5°C. The floor of the vivarium was covered with gravel which was periodically removed, the vivarium cleaned, and clean gravel added. A container of dechlorinated tap water was available at all times. The snake was fed earthworms (Lumbricus terrestris) its entire captive life. For the 11 years that earthworm consumption was recorded (no records were kept for 1978 and 1979), a mean of 97.1 earthworms were consumed per year (Alpaugh, 1980). One litter of six young was born in 1972. A male cohabited with this snake for all but about two years and although copulation appeared to have occurred, no additional births took place.

### Literature Cited

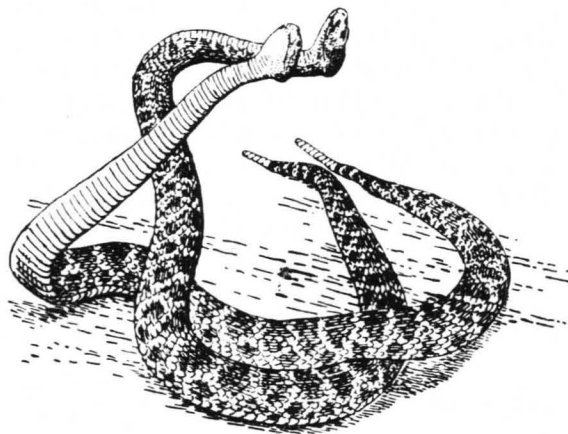
Alpaugh, W.C. 1980. Earthworm (Lumbricus terrestris) consumption in captive garter snakes (Thamnophis sirtalis).

--Walter C. Alpaugh  
and  
Walter J. Alpaugh  
5 Central Street  
Lebanon, New Jersey 08833

EDITOR'S NOTE: The documented age maximum for Thamnophis sirtalis is 10 years. This reference and more information on known longevity in other reptiles may be found in:

Bowler, J. Kevin. 1977. Longevity of reptiles and amphibians in North American collections. SSAR Herp Circular No. 6, 32 pp.

[This publication is available for \$2.00 (payable to "SSAR") from Dr. Douglas Taylor, Publications Secretary, SSAR, Department of Zoology, Miami University, Oxford, Ohio 45056]



## Herp Housing Ideas

Herpers usually have two things very much in common with others of their ilk. First, they are always in need of more and better housing for their herps. Second, they're usually broke, hard up for money, or would rather spend the money they do have on less frivolous items such as second generation, captive-born albino, striped two-headed California kingsnakes. In any case, I offer up the following ideas for those in similar situations. The first is the poor-man's answer to the all-glass caging unit that has become so much the rage of tri-color enthusiasts in particular. For those not familiar with the concept, cages of this type are made by individuals with access to heavy-duty glass in large amounts at low prices. They may be single units or dormitory-type affairs consisting of up to six separate cages. They are made entirely of glass sealed with silicone epoxy and include doors with small cabinet hinges and latches also sealed into place with an aquarium-type adhesive. One needs to be of an extremely "handy" nature in order to construct such a unit, or extremely wealthy in order to buy them.

I therefore have come up with the following alternative. Take an old (or new) all-glass aquarium in the five- or ten-gallon range. Lay it on one side and with aquarium sealer, install a strip of double-strength window glass approximately two inches wide along the bottom edge. Cut another piece of glass of the correct size to fill the rest of the area but leaving a 1/8 inch wide gap between the two pieces. Two small brass cabinet hinges should be sealed into place along the gap and a hasp of appropriate size should be bent and sealed into place along the top edge. When the sealer is dry, you have an effective and affordable all-glass housing unit that is front-opening and easy to stack, and attractive, too.

Some herpers may argue the merits of such units as the amount of ventilation is minimal. However, several friends keep extensive collections of snakes in such enclosures and have done so for the past five or six years. The snakes breed well and thrive in these collections and if there are any drawbacks from such units, I am not aware of them. I cannot recommend them for certain species of herps, however, including the following: bullsnakes (Pituophis); racers (Coluber), and other racer-like snakes; large boids; or any venomous reptile. Small and secretive species do best in these units, particularly king snakes and milk snakes (Lampropeltis) and rat snakes (Elaphe), particularly the corn snakes.

Amphibians also do well in these units.

A second housing unit that is both easy and affordable to construct is the outdoor turtle pen. Box turtles and tortoises are best kept outdoors during the Kansas summer and one doesn't need an enclosed palace garden to keep them this way. Old tractor tires are common elements of the rural countryside and when installed in a fenced backyard they make great turtle pens. Half a foot of sand and soil in the bottom, a few shelters and a water basin complete the affair and it's a whole lot easier than constructing elaborate, trenched wire enclosures as I so often tried to do when I was a kid. Similarly, stock watering tanks are excellent enclosures for turtles. Good tanks can be used for water dwelling turtles, and old abandoned tanks with holes rusted through in the bottom are excellent for land turtles and even lizards. A layer of gravel should cover the bottom, topped with sand or soil.



The gravel, plus the holes in the bottom, provide drainage during legendary Kansas downpours.

Small critters are subject to depredation by various predators in such outdoor pens and care must be taken with small chelonians or lizards.

Hope these ideas are of some help!

--Martin Capron  
Box 542  
Oxford, Kansas 67119

### Snake Killings

While walking by a popular fishing spot on the Minnescah River on 4 March, Scott Hillard and I came upon a gruesome sight. Nine dead Red-sided Garter Snakes (Thamnophis sirtalis parietalis) littered the ground in front of us.

The snakes had been killed by some individual who evidently doesn't think snakes have a right to share the earth with him. The garter snakes in this area live on the river bank and dive into the water when disturbed. It is no easy task to catch them--especially nine in one day. The individual(s) who ended the lives of these harmless serpents must have really worked at it. Disgusting!

The point is that this is just another example of the common man's hatred of snakes. Attitudes must be changed. It is up to herpetologists and wildlife lovers in general to help change them.

--Tom Dillenbeck  
905 South Pearl Street  
Pratt, Kansas 67124

### Winter Activity Noted in Southern Kansas Herps

For those of us who long for the warmer days of spring all through the bleak days of winter, imagining a hognose snake crawling slowly across the road or a timber rattler coiled patiently on the forest floor, this year has been a little easier to bear than some other Kansas winters. January and February were unseasonably mild in 1986, with a number of days when the temperature climbed well over 70° F and even more days in the 50 and 60 degree range.

As so often happens, enterprising reptiles and amphibians have been making the most of the weather and appearing in the open hereabouts. Unlike the normal winter time appearances, however, the snakes this year have ventured well away from their hibernaculums. A friend reported a DOR Bullsnaek, Pituophis melanoleucus sayi, during late January; and shortly thereafter another man brought a 67-inch male Black Rat Snake, Elaphe obsoleta, to my home. He had found the snake freshly hit on a highway south of Oxford.

A week later, on 6 February, I came upon an adult Prairie Kingsnake (Lampropeltis calligaster) DOR on a county blacktop just outside of

Arkansas City. And on 21 February, I found another large Black Rat Snake dead on the highway just east of Oxford.

I have checked wells locally that are favorite winter retreats of these serpents but have failed to observe any there as is so easily done on sunny days during the early spring.

I find it a bit unusual to see so many large adult serpents traveling so far afield this time of year in spite of generally mild winter conditions. Also, I have never before witnessed a Prairie Kingsnake active earlier than 28 March.

One additional observation--I saw several four- to five-inch False Map Turtles, Graptemys pseudogeographica, basking on logs in the Arkansas river on 4 February of this year.

--Martin Capron  
Box 542  
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#### KHS BRINGS YOU MORE NEWS OF THE WORLD...

WOODBURY, N.J. A man accused of trying to force his estranged girlfriend to eat her pet iguana must go to jail, says a state Superior Court judge who rejected a plea bargain that called for probation.

Harry Kostic, 32, must serve a jail term for beating Beverly Swain with the 18-inch iguana, and then trying to shove pieces of the dead lizard down her throat, Judge Elliot G. Heard Jr. ruled.

Heard, in a ruling Friday, reset Kostic's sentencing date for next Friday.

Under a plea bargain with the Gloucester County prosecutor's office, Kostic pleaded guilty last month to charges of aggravated assault and animal cruelty. The prosecutor's office recommended that charges of making terrorist threats and criminal restraint be dropped and that Kostic be sentenced to probation.

Heard's ruling means the guilty plea will be thrown out so attorneys can attempt to reach a new plea bargain.

Kostic is accused of attacking Ms. Swain, 25, on Nov. 25, as she attempted to retrieve her belongings, including the iguana, from his home.

Authorities said the lizard died when Kostic threw it against a wall and that he cut it up before trying to force Ms. Swain to eat it.

Assault carries a maximum penalty of three to five years in prison and a \$750 fine, and animal cruelty carries a maximum penalty of six months in jail and a \$250 fine.

Ms. Swain appeared in court Friday to oppose the probationary sentence but was not allowed to speak.

She said later that she did not want to see Kostic "be able to walk away from this."

She said the alleged beating and confrontation with the iguana were "disgusting...this was so gruesome...My whole face was black and blue. He had a rope around my neck [so] that [my neck] was black and blue also."

--Lawrence Journal-World, 21 April 1986  
(submitted by Jeff Whipple, Lawrence)

## HERP HEALTH CARE AND HUSBANDRY TIPS

Many people find that iguanas, salamanders, and non-poisonous snakes make appealing and exotic pets. One of the most basic requirements for maintaining these animals in a healthy state is keeping them clean. Here are some tips for disinfecting and sanitizing their enclosures and maintaining their environment that will safeguard the health and well-being of these unconventional pets.

Keep the environment as simple as possible. Don't load the housing unit down with unnecessary "stuff" that may appeal to you, but do nothing for your animal. Also, stay away from materials that may harbor bacteria and parasites, like plants, soil, or cloth. Provide a limb for the animal to climb on, or a stone for it to hide under and use newspaper to line the bottom of the enclosure. Remember that newspaper is inexpensive, that the inks are not harmful, and that it is easy to change when soiled. Frequent changing reduces the possibility of disease or infection.

The few items necessary for the animal's well-being (enclosure, limb, stone, etc.) should be thoroughly disinfected as often as necessary, certainly no less than twice a year. The water bowl should be disinfected weekly. The following five-step program will adequately clean the environment and uses inexpensive, household supplies.

First, wash the items in hot, soapy water. A good, mild soap to use is Ivory brand, because it contains no oils or perfumes.

Second, rinse the items in clear, hot water, being sure to remove all soap residue.

Third, scrub items with a Clorox solution. The best strength solution is two tablespoons of Clorox per gallon of water.

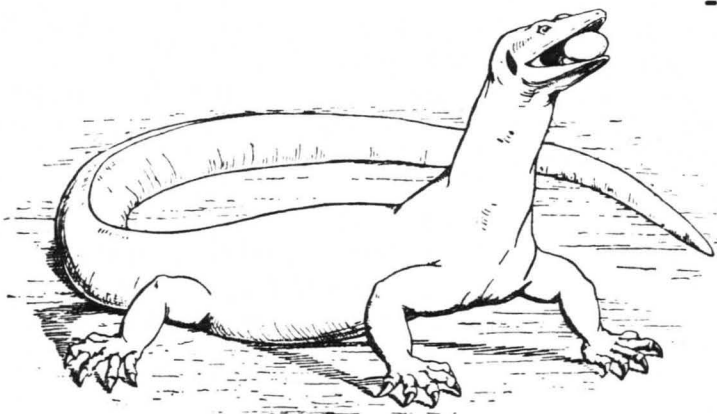
Forth, rinse thoroughly in clear, hot water.

Fifth, bake the items in a conventional oven at 200° F for 20 minutes. Be careful not to scorch the items. This baking will kill any bacteria or parasites that survived the Ivory soap and Clorox bleach.

This may seem like a lot of work, but having healthy and contented animals will make the effort worthwhile. Following these tips will keep your pet healthy and alive.

Do you have suggestions for raising happy, healthy herps? If so, write us and share your success with everyone. If your article is selected, we may print it in a future issue of the KHS Newsletter, giving you full credit for your work.

Good health to you and your animals!



--Jeff Whipple  
and  
Nancy Schwarting  
Animal Care Unit  
The University of Kansas  
Lawrence, Kansas 66045

## BOOK REVIEWS

Marais, Johan. 1985. Snake Versus Man. A Guide to Dangerous and Common Harmless Snakes of Southern Africa. ISBS, Inc. 102 pages, 62 color plates, \$7.95 hardback. Available from: ISBS, Inc., 5602 NE Hassalo Street, Portland, Oregon 97213.

This book covers 23 "potentially dangerous" and 16 harmless species of snakes that inhabit the southern part of the continent of Africa. From its title, I expected something truly sensational and outrageous. Much to my surprise, this turned out to be a very interesting book, well thought out, and a bargain at its low price for a hardback.

The 62 color photographs are grouped to facilitate identification, thus, they are arranged by the snakes color or pattern. They vary from good to excellent in quality. All the snakes are depicted on either natural or naturalistic backgrounds, and are keyed to the appropriate spot in the text for information on that species. There are some very good photographs of some seldom-photographed species, too, such as the Rufous Beaked Snake, Rhamphiophis oxyrhychus, and a shedding juvenile Boomslang, Dispholidus typus. I had no idea the juvenile Boomslang was as beautifully colored as the one depicted. The photo captions include both the common and scientific names of the snakes, which is very useful if you are only familiar with these species from written descriptions.

The first seven pages are a very general introduction to snakes. This is followed by six pages dealing with snakebite. Detailed first aid measures are given, along with black-and-white photos showing the application of a pressure bandage, etc. The first aid procedures for snake bite are quite interesting to compare to the recommendations we are used to for North American species.

Throughout the remainder of the book there are good line drawings and black-and-white photos in the sections for each of the 39 species treated. Each account covers the size of the species, color and pattern, distribution, field notes, food, reproduction, venom, and specific first aid measures for treating envenomation from that species, if appropriate. The accompanying range maps for each account are kept general on purpose, and the reader is referred to specific sources for more detailed distributional information. I found the accounts for the species I was familiar with to be good information and accurate. It is impressive, in fact, how much information about each species the author was able to squeeze into each account.

There is a general bibliography for southern African snakes and an index.

In this age of expensive books, this book is a very good bargain. The 62 color photographs are good, printing quality is high, and a hardback for \$7.95 with color plates is just about unheard of anymore. Its only limitation is that it only covers 39 species of snakes, however, it covers them very well indeed.

--John E. Simmons  
Museum of Natural History  
The University of Kansas  
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A Summary of the More Common Zoonotic Diseases. American Association of Zookeepers.

What is a review of zoonotic diseases (diseases carried by animals that can be transmitted to humans) doing in a herpetological newsletter? Although amphibians and reptiles are capable of carrying only a couple of known zoonoses, it is not uncommon for someone who keeps herps to acquire other wild or exotic animals, animals which may harbor disease. In addition, many budding herpetologists end up in a zoo job and are exposed to an enormous variety of exotic animals and their zoonoses. After I acquired a parasitic protozoan normally found in primates some time ago, zoonoses became more than a passing interest to me. So it was with some anticipation that I read a copy of the American Association of Zookeepers booklet, "A Summary of the More Common Zoonotic Diseases."

For a subject of such potential interest and importance to those individuals involved in keeping exotic animals, I was sorely disappointed in this pamphlet. To begin with, the work is filled with misspellings and errors of syntax. I counted over 30 misspellings and enough incomplete sentences to earn a low D in any high school level English course.

These errors are minor in comparison to other glaring inadequacies in the pamphlet. The main body of the work identifies specific disease entities that are further divided into alternative/intermediate hosts, means of transmission, etiologic agents, distribution of the disease, human incubation periods, and human symptoms of the specific disease.

Let's examine the first category. Under "Farcy" we are told to "see Glanders." Alright, we flip to "Glanders" and we find "(Farey)." Nothing else. First, is it "Farcy" or "Farey"? Second, what are either? Next, one finds "Itagui." We are told to "see Apeu." If there is an "Apeu" in the booklet, I could not find it. Believe me, I looked. I still do not know what "Itagui" or "Apeu" is. We then find "Korean." Korean what? Fever? Encephalitis? I also found "Louping Ill" and "West Nile." What are these?

We now move to alternative/intermediate hosts. I found most of the information here to be relatively accurate but there are a few exceptions. For example, fish, reptiles, and birds are also hosts for Capillaria worms, not just rodents. Lizards are hosts for tongue worms and, in fact, may be major reservoirs for this pest in certain parts of the world. On the other hand, wherever did the authors find that toads (or turtles) are hosts for papilloma viruses? After all these years of telling people that toads do not cause warts, am I now to find that I am totally wrong? Since when did turtles become the definitive hosts for trichomonad flagellates? All reptiles carry trichomonads but the species infective in humans is specific to humans only.

Onward through the fog...the means of transmission category was accurate for the most part. I did find one glaring error, though. Dicrocoelia (a fluke) is transmitted by an ant intermediate host, not by contaminated herbage. Rabies and histoplasmosis are not only transmitted by contact, they can be air-borne. By the way, birds are also hosts for the latter organism, not just mammals.

Etiologic agents. Once again, for the most part, this section was relatively accurate but, as with the other sections, there are embarrassing errors. Fasciolopsis and Fasciola are flukes, not protozoans, for crying out loud. Vibrio parahaemolyticus is a specific organism that causes a specific illness. How can the etiological agent therefore be

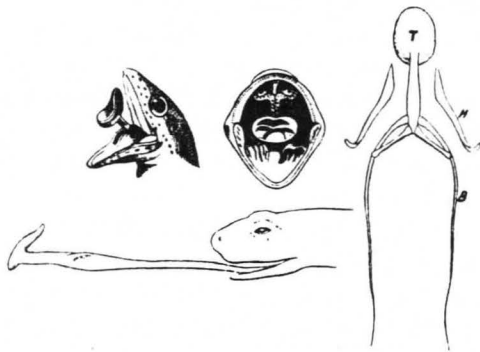
"uncertain?" Although I suppose proglottids could be considered an etiologic agent for raillietinosis, I think "eggs" are more proper. In addition, there may be some confusion caused by the name of the disease. The tongue worm Raillietiella is also a potential zoonotic agent but is not listed and no effort was made to show that the former disease is caused by a tapeworm.

I assume that the distributions and incubation periods are accurate because I do not have the time or resources to check that information. I have reservations, though, given all the other errors in the text.

Last, we come to human symptoms. In certain cases, the authors do not go far enough. For example, anthrax is one of the deadliest diseases known to man, yet this fact is not mentioned. The same is true for dengue fever and hydatidosis. However, these omissions are minor compared to another type of omission. For no less than nine specific diseases, no symptoms at all are listed! One of these non-symptom bearing diseases is staphylococcosis, a medically very important disease. Sometimes the information, when present, is misleading. Although Pseudomonas tends to be an opportunistic pathogen in people, symptomatic cases are serious and very difficult to treat. The authors suggest that Pseudomonas infections are asymptomatic.

Let's take a look at the author's choices of zoonoses. Many of the diseases listed are parasitic in origin and most of these require an intermediate (and thoroughly unappetizing) host of some sort. How many of us eat portions of our animals raw? How many of us will have contact with exotic ticks, mosquitos, and the like? I question the choice of such diseases as being relative to animal keeping. I directly question a few choices as even being zoonotic. On what basis can the authors claim that leprosy and Legionaire's disease are zoonotic? If Legionaire's disease is chlamydial in origin and the organism is carried by pigeons, then the latter is possible, but there is no good proof of either. The bacterium Legionella has not been demonstrated in any animal except humans, to my knowledge. Since when did snakebite become a zoonosis!? That is patently absurd. Snakebite is poisoning, pure and simple. There is no disease being transmitted, unless it is Pseudomonas on the snake's fangs (that Pseudomonas which is probably going to be asymptomatic).

All in all, this is a very poorly researched and edited work. Some of the information contained in it is potentially dangerous. If there are future editions, it would behoove the authors to be far more careful and critical. In addition, the booklet would be vastly improved if the diseases were organized into sections such as "Parasite," "Bacterial," "Viral," etc. However, I can find no compelling reason for anyone to acquire this work until drastic changes have been made in it.



--Eric M Rundquist  
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Mattison, Chris. 1986. Snakes of the World. Facts On File Publications, New York. 190 pages, 127 photographs (about half in color), \$17.95 hardbound. Available from: Facts On File Publications, 460 Park Avenue South, New York, NY 10016.

"At an early age I came to the conclusion that those organisms which are universally feared and loathed are invariably the most interesting."

With this statement, which anyone interested in reptiles and amphibians will easily relate to, Chris Mattison bravely tackles the job of writing a book about snakes of the world. As a general treatment of snakes, it is a good book. What makes this volume unique is that it falls into a gap few do. It is far more advanced in its treatment of the biology of snakes than most books of this type, yet it stops short of being too technical. The writing style is clear and concise, the information factual and presented in an accessible format. The line drawings are very good, but the black-and-white photos vary from quite bad to fair. The color plates are often very good, some rather stunning, but in the copy I was sent, many were poorly reproduced, being far, far too dark. I suspect the originals were much better.

The introduction contains the usual stuff plus a nice section explaining what scientific names are and how they are to be used. Be cautioned, however, that it is a little bit over-simplified.

Chapter two covers "Size, Shape, and Function." There is a very good discussion of what scales are and of what use they are to the snake. This section also deals with such topics as parallel evolution (similar adaptations in different species). There is a very interesting table that compares the "Distribution of Environmental Adaptations Throughout the Families of Snakes."

Chapter three is "Colour and Markings," which offers a rather unusual photo of a two-year-old green tree python, Chondrophython viridis, about half-way between the juvenile yellow coloration and the green of the adult.

"Reproduction" is dealt with in chapter four. I take issue with the author's statement that "Courtship in snakes is unspectacular compared with other groups of vertebrates." This may be true among European species, but many North American species have rather intriguing courtship rituals. Incidentally, he does not mention such interesting subjects as combat in rattlesnakes and cottonmouths, etc. He provides another interesting table in this chapter, comparing the numbers of eggs or young per clutch, gestation, and incubation periods for 24 species.

Chapter five covers "Foods and Feeding," six discusses "Defence," and chapter seven is on "Ecology and Behaviour." This chapter has a good introduction to what thermoregulation means in terms of snake biology, and also is concerned with community ecology. He discusses adaptations to some habitats (forests, deserts, mountains, rivers and lakes, the sea, and man-made habitats) and zoogeographic patterns of distribution.

The next chapter is on the always absorbing subject of "Snakes and Man." He discusses snake worship (though that of certain non-western cultures, not the worship of Lampropeltis by North American herpers), and the exploitation of snakes. The section on snake bite is concerned with its incidence worldwide, not its treatment.

The last chapter of the book is devoted to descriptions of the families of snakes. There are a few paragraphs for each family group,

with a distribution map for the family. The larger families (boas and pythons, colubrids, elapids, and vipers) are treated in much more detail, broken down by subfamily or similar subdivisions.

The bibliography (just over three pages) is "intended as a starting point for those wishing to expand their knowledge of snakes," and is arranged by subject, which is useful.

I think this book would be helped a lot by the inclusion of a better bibliography, since the level it is written on is bound to inspire readers to attempt to delve further into many of the subjects it covers.

For the price (\$17.95 for 190 pages), I would want much higher quality reproduction of the photographs. It is a very good book, however, especially for someone who wishes to advance beyond a mere basic understanding of snakes to find out something of their biology. It is well-written, easy to understand, and very interesting to read.

--John E. Simmons  
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#### A FINAL WORD FROM THE EDITOR

First, the subject of dues. As I have written in this space before, since the KHS decided to return to mailing the newsletter by first-class mail, it is VERY important for all of you to pay your dues promptly. Our treasury gets very low as the year goes by. This will be absolutely the last newsletter for many of you if you do not pay up NOW. We have been very lenient about canceling memberships in the past, but we can no longer afford to be so generous. You know who you are. Pay up or else.

Confusion in Common Names Dept: Kansas Nongame Notes, a very useful and well-written publication that comes from the Kansas Fish and Game Commission every couple of months, recently carried an article on Ornate Box Turtles. However, in the last paragraph the turtle is referred to as "the ornate terrepin," a fairly easy mistake to make given the state of common name calling these days. The name they were looking for is, of course, terrapin, not terrepin, but it is still not correct. All chelonians are called turtles. Terrapins are certain semi-aquatic turtles in the family Emydidae that prefer brackish water. Tortoise refers to members of the family Testudinidae. You will note that tortoise shell thus comes from turtles, not tortoises. To further confuse the issue, Webster's New Collegiate Dictionary correctly identifies the origin of terrapin as an Algonquain Indian word, but then says it refers to "any of various edible No. American turtles (family Testudinidae) living in fresh or brackish water," which is no longer correct (Emydidae used to be lumped with Testudinidae). Members of the family Testudinidae should be called tortoises, not terrapins, if you don't want to just call them turtles.

Thanks for help in proofreading, assembling, addressing and stamping the last issue to Joseph T. Collins and Sofia Ana Simmons.