

SEPTEMBER, 1984

ANNOUNCEMENTS

11th Annual Kansas Herpetological Society Fall Meeting

The long awaited eleventh annual meeting of the KHS will be held on Saturday and Sunday, 10-11 November in Fredonia, Kansas. Fredonia is located in Wilson County, about 80 miles east of Wichita, on Highway 96. The site of the festivities will be the National Guard Armory in town. For those wishing free lodging (and don't we all?) the Armory will be available to pitch your cot or sleeping bag in.

Bring to this meeting items to donate to the auction, which is the major fund-raiser of the year for KHS. NO live herps, please. You will also be able to pay your 1985 KHS dues directly to our renown Secretary-Treasurer, Larry Miller.

If you have any further questions about the meeting, contact:

John Fraser
(316) 378-3138 evenings

PROGRAM FOR THE ELEVENTH ANNUAL KHS MEETING
10-11 NOVEMBER, 1984
FREDONIA, KANSAS

Saturday, 10 November

10:00 Doors open for REGISTRATION and payment of 1985 dues.
13:00 Welcome, JOHN FRASER, KHS President
13:05 KELLY IRWIN (Topeka), "The Alligator Snapping Turtle in Kansas"
14:00 KHS GENERAL BUSINESS MEETING and Election of Officers
14:30 Coffee break, GROUP PHOTOGRAPH in front of Armory
14:45 JOHN FRASER (Fredonia), "A Week of Adventure in the Trans-Pecos"
15:30 MEMBERS BEST - bring your best color slides of amphibians and reptiles and tell us about them (limit 30 slides per person)
17:30 DINNER BREAK
19:00 SOCIAL begins, beer inside the Armory
19:30 KHS AUCTION, support the KHS and bring your donations. Come prepared to bid bid bid.

NOTE: The Armory building will be open Saturday night for any members who wish to spend the night. Bring your own cot or sleeping bag.

Sunday, 11 November

09:00 JOSEPH COLLINS (Lawrence), "Natural Kansas," a multi-media presentation of the Land of Awwwws.
09:40 LARRY MILLER (Caldwell), "Herps of Sumner County, Kansas"

- 10:00 MARTY CAPRON (Oxford), "Precarious Moments in Snake Hunting"
 10:30 Coffee break
 11:00 JOHN SIMMONS (Lawrence), "Getting High on the Equator"
 11:30 RAY LORAINÉ (Lawrence), "Herpetology at the Savannah River Ecology Lab"
 12:15 Have a good trip home!

Herpetology of Arabia

A new reprint is soon to be made available from the Society for the Study of Amphibians and Reptiles (SSAR) which covers an area of the world with a fascinating herpetofauna, but one few of us know much about. In 1896, John Anderson published the book A Contribution to the Herpetology of Arabia, with a Preliminary List of the Reptiles and Batrachians of Egypt, a pioneering effort to summarize the herpetology of those regions and, to this day, the only herpetology of the Arabian Peninsula. The original book is exceedingly rare, probably published in an edition of no more than 100 copies, and is much less well known than Anderson's major work on amphibians and reptiles in the Zoology of Egypt series. The Arabian book includes a description of the physical features, a review of the amphibians and reptiles of the Arabian Peninsula including Yemen, an exhaustive bibliography of the herpetology of Arabia, and a checklist of species both of Arabia and of Egypt including the Sinai. This reprint includes a new introduction and a biography and portrait of Anderson, a list of his publications and an up-to-date checklist of the herpetofauna of Arabia, with map. The book is 160 pages, 6 x 9 inches (15.5 x 23 cm), and bound in buckram; there is one plate in full color. SSAR members may order before 30 November for US \$18, after that date for US \$24, which is also the price to non-SSAR members. The book is to be published in December 1984, and may be ordered from Dr. Douglas H. Taylor, Department of Zoology, Miami University, Oxford, Ohio 45056. Price includes shipping. Make checks out to "SSAR".

Gray-Banded T-Shirts?

The Chihuahuan Desert Research Institute announces stunning new t-shirts for sale, described as "black with red bands on a pearl gray shirt." Yes, this could only be the infamous Gray-Banded Kingsnake, Lampropeltis mexicana all ready to grace your chest. These shirts are 100% pre-shrunk cotton, have the Institute logo beneath the snake, and are available in S,M,L, and of course, XL. The cost is \$9 for non-members (\$8 for the in-crowd) plus that tacky \$0.50 for postage and handling from the Chihuahuan Desert Research Institute, Box 1334, Alpine, Texas, 79831.

The Snake Eyes of Texas are Upon You

Texas Monthly Press announces the publication of The Snakes of Texas by Alan Tennant, with photographs by Michael Bowerman. This work contains 128 full-color photographs of 106 species and subspecies in its

561 pages. Accounts of species also include information on behavior, ecology, and natural history of the animals. Copies may be ordered at a mere \$60 each, plus a staggering \$5 tax and shipping, from Texas Monthly Press, P.O. Box 1569, Austin, Texas, 78767.

The Life of Desert Reptiles and Amphibians

This is a new publication by Karl H. Switak, and contains 32 pages in full color of animals photographed in their natural habitat. It purports to be "the only publication dealing specifically with the care and keeping of desert reptiles and amphibians from the southwestern U.S., northern Mexico, and parts of Baja California." The book is 6 x 9 inches, semi-hard cover, and contains information on temperature requirements, nutrition, cage set-ups, etc. for each species. The price is \$4.95, and includes postage if payment is enclosed with order. Order from Karl H. Switak, P.O. Box 27141, San Francisco, California 94127.

Globe Reptile & Animal Exchange

This new organization intends to publish a monthly newsletter with letters from subscribers, articles on care and breeding of reptiles, mammals, and birds, book reviews, etc., for \$18/year. CAUTION: their newsletter will also run classified ads "to sell stock and supplies, search out new or rare animals, or advertise your services." For \$1, you may receive a complimentary copy of the premier issue. The address is Globe Reptile and Animal Exchange, P.O. Box 7011, York, PA 17404.



KHS FIELD TRIP - MAY 1984

The weekend of 18-20 May was the first, last and only 1984 KHS Field Trip. Congratulations to those dedicated few who made it. Members converged on the Cedar Bluff Reservoir area in Trego County on 18 May. Thanks to the miracle of the CB and the process of elimination, we think all potential participants eventually located the camping site, despite a somewhat misleading map. (If there were any of you who did not find the campsite, contact Scoutmaster Kelly Irwin.)

The weather was chilly and wet, and road cruising the first night turned up only Woodhouse's Toads (Bufo woodhousei) and Plains Spadefoots (Scaphiopus bombifrons). Saturday was more productive, turning rocks and road cruising in both Trego and Graham counties. KHS President, John

Fraser, and cohorts arrived in time for lunch. Fraser displayed a swollen hand, the result of a Western Hognose Snake (Heterodon nasicus) bite which had occurred approximately 16 hours earlier.

The highlight of Saturday afternoon was the discovery and capture of a large and very active Prairie Rattlesnake (Crotalus viridis viridis), found on a limestone outcropping.

After yet another damp night, members dispersed for home early Sunday morning. Amphibians and reptiles collected in Trego and Graham counties were as follows:

Trego County

Plains Spadefoot, Scaphiopus bombifrons
Woodhouse's Toad, Bufo woodhousei
Great Plains Narrowmouth Toad, Gastrophryne olivacea
Ornate Box Turtle, Terrapene ornata ornata
Prairie-lined Racerunner, Cnemidophorus sexlineatus viridis
Eastern Hognose Snake, Heterodon platyrhinus
Prairie Ringneck Snake, Diadophis punctatus arnyi
Plains Blackhead Snake, Tantilla nigriceps nigriceps
Great Plains Rat Snake, Elaphe guttata emoryi
Common Kingsnake, Lampropeltis getulus
Central Plains Milk Snake, Lampropeltis triangulum gentilis
Prairie Rattlesnake, Crotalus viridis viridis

Graham County

Prairie Ringneck Snake, Diadophis punctatus arnyi
Plains Blackhead Snake, Tantilla nigriceps nigriceps
Central Plains Milk Snake, Lampropeltis triangulum gentilis
Prairie Rattlesnake, Crotalus viridis viridis

--Nancy Schwarting
Museum of Natural History
University of Kansas
Lawrence, Kansas 66045

KHS BRINGS YOU NEWS OF THE WORLD AND WAY BEYOND...

Snake in the Sewer Unnerves Residents

ROSENBERG, TEXAS. The escape of Gaya, an 11-foot-long pet python, had residents so frightened that one woman barricaded her toilet to keep the serpent from slithering up the pipes and another took a shower with her foot over the drain.

But four days later, the alert was over when Thomas Houston found his "sweetheart and baby" sitting on a manhole ledge just a block from his house.

"She was all scratched up," he said. "She smelled terrible."

Houston discovered that the 21-pound snake was missing on Wednesday. Because she had escaped from the family bathroom, where she was customarily locked up for the night, Houston concluded his pet had pushed up the toilet seat with her head and had slithered into the town

sewer system.

"It was her only way out," said Houston, 26. "And she loves water."

Houston began a search of the city's manholes. A day later, he reluctantly asked the town sewer department if anyone had seen his pet. "I don't like people to know about her. It seems to upset them," Houston said in explaining his reluctance to contact authorities. Pythons are not poisonous, but crush their prey by wrapping tightly around it.

Officials hadn't seen the snake, but they decided residents should be cautioned that a 5-year-old python had entered the sewer system. So the local press was notified.

City hall and the police department were immediately bombarded with telephone calls from residents wanting to know if the snake had been found and what to do if they discovered it.

One woman stacked heavy objects on top of her toilet to keep the snake from lifting up the lid, and another blocked the shower drain with her foot in case of a surprise visit, the Houston Chronicle reported.

After finding his pet on Sunday, Houston took her home and gave her a bath in the family bathtub with baby shampoo -- a weekly ritual he says Gaya enjoys.

Gaya contracted a minor bacterial infection from her romp in the sewers, but otherwise seems none the worse for wear, Houston said.

"We're just glad to get her back," Houston said as Gaya circled around his neck, her forked tongue constantly in motion.

Houston says he believes Gaya pushed up the toilet seat because she was hyperactive from some vitamins recently prescribed by a veterinarian.

--Lawrence Journal-World, 12 June 1984

Farmer Finds Remains of Sea Turtle Estimated to be 69 Million Years Old

FATE, TEXAS. A farmer out in his field near this inland community has found the fossil remains of a 14-foot-long sea turtle estimated to be 69 million years old.

The fossil, known to scientists only through a few complete specimens, is "a very important find," Richard Fullington, curator of collections at the Dallas Natural History Museum, said Wednesday.

Museum volunteers, excavating the site with hoes and knives for more than a week, have uncovered more than 250 bones and bone fragments, he said.

Farmer Jimmy Joe Herndon discovered the first bones in a gully June 24, museum officials said.

"I was sitting up on my tractor and I could see bones down at the edge of the draw," said Mr. Herndon. "I stopped the tractor and walked down there and picked them up and saw the state of petrification. I said: 'Well, I'll be damned. I got my own private dinosaur.'"

Mr. Herndon said he called the museum the next morning. Charles E. Finsley, the museum's curator of earth science, visited the site that afternoon.

Volunteers digging at the site also have found clam shells and possibly a fragment of a crab.

Museum officials said they wouldn't decided what to do with the turtle's remains until the entire skeleton has been found.

--The Kansas City Times, 6 July 1984
(submitted by Suzanne Cupp, Lawrence)

Baldwin Teacher Logs Time With Sea Turtles

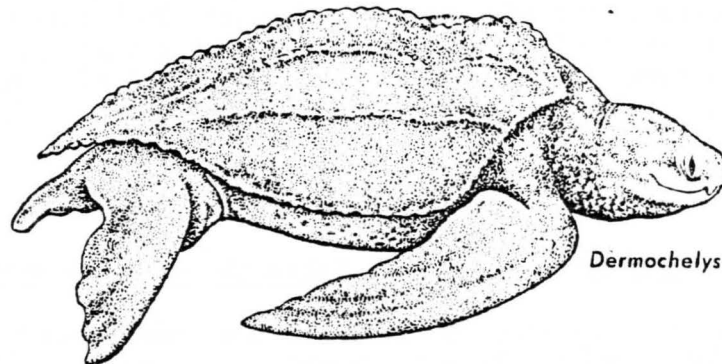
BALDWIN, KANSAS. A Baldwin woman fought in a battle a long way from home this summer.

Charlene Potter, who teaches first and second grades here, traveled to the Virgin Islands, located between the Atlantic and Caribbean, to help protect a 170 million-year-old process of nature now threatened by the encroachment of man.

For 10 days in June and July, she became part of Earthwatch, a national environmental group trying to protect the last American nesting grounds of the giant leatherback sea turtle.

The leatherbacks, still a largely unstudied species, are thought to have been already nesting on tropical beaches when dinosaurs began roaming the Earth.

The turtles have survived all the convolutions of nature since, but they may not survive man's onslaught.



"For reasons as ephemeral as human sexual vanity and vacation condominiums, their numbers are dwindling and their very existence is in question," said Mark Cherrington, an Earthwatch spokesman.

"Their eggs are poached for supposed aphrodisiac qualities. In some parts of their range, poachers take 90 percent of the eggs laid. Moreover, beachfront development is robbing leatherbacks of nesting sites."

According to Mrs. Potter, "Earthwatch doesn't worry too much about natural hazards. Nature has a way of taking care of its own. But St. Croix -- in fact, all the islands -- is getting to be a big tourist spot. Buildings on the beaches are destroying most of the turtle's areas."

Her job in Earthwatch was to help protect areas that are left, as well as gather biological data on the species.

"They are so endangered that every little bit of protection helps," she said. "They have been unprotected for so long, they need anything

we can do for them."

She learned about Earthwatch, a Massachusetts-based organization, through the travel section of a newspaper.

"I was looking for a way to travel and get some education credit at the same time," the teacher said. "Earthwatch has more than 80 programs for credit but this one appealed to me because I love the water and that particular location."

She wound up joining one of eight 10-member teams to protect the beach through the turtles' spring and early summer nesting periods.

Besides participating in anti-poaching patrols along the beach at night, she helped tag the giant turtles and move the nests that might be destroyed by tides.

"From the first day we were there, we were definitely part of the project," Mrs. Potter said.

The poaching patrols lasted from 7 p.m. until dawn.

"They are trying, and succeeding, to educate the natives not to disturb the eggs," she said. "But they can be sold for as much as \$10 each to people who believe they are aphrodisiacs. That causes some problems."

The eggs are valuable enough that poachers will risk a \$20,000 fine and up to a year in jail to rob a nest, she said.

"And island authorities are really trying to enforce it," she said. "They are very wrapped up in the whole Earthwatch project."

Besides providing protection, Earthwatch volunteers tag female turtles so their travel habits can be studied and also note measurements of nests and weather conditions during nesting periods.

All the information is necessary, Cherrington said, because little is known about the turtles, among the largest sea creatures. Females average 6 feet in length and weigh about 1,000 pounds. Males, who never come to the beach, can be a third larger.

Scientists know little about the way the creatures reach maturity, how far they migrate, where and how they mate and whether they ever return to the beach where they were born.

The volunteer teams took turns on the beach from March through early July. Mrs. Potter's tour of duty was March 24 to July 4.

"I just can't say enough about it," she said. "I would certainly recommend the experience to anyone. It is hard to know whether to try another Earthwatch project next year or do the same one again and learn more."

--Lawrence Journal-World, 16 July 1984

Alligator Kills Florida Boy

PORT ST. LUCIE, FLORIDA. A 12-1/2 foot alligator grasped an 11-year-old boy in its jaws, dragged him down the St. Lucie River and killed him before police were able to free the boy, authorities said.

It was the sixth verified fatal alligator attack in Florida since 1957, officials said.

"It was terrible, I could see the gator with the boy's hand sticking out of his mouth, and he was swimming with him down the river," said Mitchell Epstein, 26.

Police received a call on the 911 emergency line by a witness who reported "the boy was swimming in the canal and was dragged under by an alligator," said Port St. Lucie Police Officer Chuck Johnson.

"The gator was carrying an unidentified object in his mouth, and an officer fired one round at him, but the alligator submerged taking the object with him," Johnson said.

The boy, Robert Crespi, was attacked while swimming in the river Monday afternoon, police said.

--Topeka Capital-Journal, 8 August 1984

After Tragedy, Officials Post Swim Warnings

PORT ST. LUCIE, FLORIDA. The river where an 11-year-old boy drowned after being hauled down by a quarter-ton alligator should have been off limits to swimmers, according to a reptile expert who said the animal was "in his home."

"Man causes the problem," said Tommy Gore, who is called in to snare nuisance alligators which threaten humans. "No children should be allowed to swim in the St. Lucie River. Three years ago, the largest alligator ever caught in that river -- 13 feet, 9 inches -- was within 15 yards of the rope swing near Prima Vista Boulevard. When you swim there you are in his home."

Robert Crespo, who was swimming in the St. Lucie River, died Monday in a 12-1/2 foot gator's jaws. An autopsy found that Crespo died "as a result of drowning," not from wounds inflicted by the animal, officials said.

Rivergate Park, where the attack occurred, was closed Tuesday while park workers posted signs warning visitors to "Beware of Alligators," and "Do Not Feed The Alligators."

The park was scheduled to reopen today, said Port St. Lucie Police Cpl. Chuck Johnson, though officials can't guarantee another attack won't occur.

"There are probably a very large amount of alligators in that river," said Johnson. "It would be virtually impossible to ensure we would not have another alligator up that specific canal."

The boy was the sixth person to die in an alligator attack in Florida since 1957, said Lt. Biff Lampton of the Florida Game and Fresh Water Fish Commission.

"This is the first case we've had like this in several years," said Capt. A.J. Ries of the fish commission. "We've had a few attacks with people getting stitches, but I can't remember the last death."

Witnesses summoned police after they saw the alligator grab the boy and pull him under. Rescuers recovered the child's body in about 12 feet of water and, about an hour later, officers shot and killed the reptile. It was 12 feet 5 inches long and weighed between 500 and 600 pounds, Johnson said.

"He was hungry," said wildlife officer Stoney Lee. "He was in poor shape, undernourished. He had saggy skin under his stomach."

--Lawrence Journal-World, 8 August 1984

Two-headed Snake Born in Captivity

TALLAHASSEE, FLORIDA. A rare, two-headed corn snake appears to be thriving after it hatched in captivity earlier this week, a snake specialist said Friday.

The 12-inch-long reptile, hatched Wednesday at the home of Craig Trumbower, is one of very few two-headed snakes living in captivity, said Bill Haas, director of the Miami Serpentarium.

Haas knew of only two others -- a common water snake at the Miami Serpentarium and a king snake at the San Diego Zoo -- that lived long after hatching.

The corn snake, also known as Elaphe guttata guttata, has two perfectly formed heads that form a "Y" as they connect with the single body, Trumbower said.

Except for the heads, the snake is perfectly normal, Trumbower said, "Not a scale out of place."

The birth of any two-headed animal or reptile is unusual, but not unheard of, said Trumbower.

Haas speculated that many more two-headed snakes are born in the wild, but none survive long.

But most two-headed snakes die shortly after they hatch because they can't eat properly, Trumbower said.

Both heads on the corn snake have swallowed fluid, but it is not known whether the snakes usually don't eat until after they shed their first skin, which takes about a week.

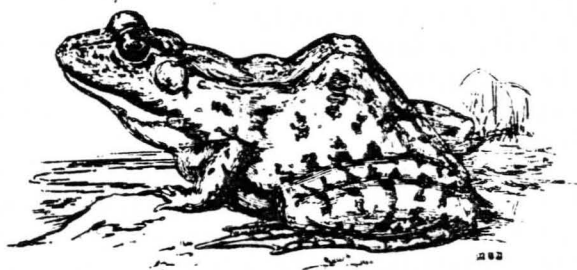
"The snake is thriving. It seems to be doing very well," said Trumbower, who works as a nurse at the Tallahassee Memorial Regional Medical Center and breeds snakes in his spare time.

Corn snakes, which grow to about 3 to 4 feet long, are harmless to human beings and helpful because they eat rats. The red-splotched snakes have a black-and-white checkerboard pattern underneath.

The corn snake was born with two heads because of a freak of nature, Trumbower said. The snake may have begun developing as twins, but something went wrong and the snake developed with two heads instead of one.

--Fort Myers News-Press, 4 August 1984

(submitted by M. Pellicer, Ft. Myers, Florida)



How A Little Lizard Gets Palm Springs To Do Its Bidding

COACHELLA VALLEY, CALIFORNIA. Attorney Paul Selzer looks out over the desert here and suggests a worst-case scenario: roughly \$19 billion in

potential real-estate development stopped in its tracks. Jobs lost, companies ruined.

All for the sake of a scrawny, seven-inch reptile. Leapin' lizards!

Actually, the lizard in question is more apt to dive than leap. Uma inornata, better known as the Coachella Valley fringe-toed lizard, is a sand swimmer able to burrow into dunes in a flash.

For a time, some people here were calling it "that damned lizard." The reason: the once-ubiquitous reptile, in decline as its habitat is gobbled up by development, is subject to the protection of the federal Endangered Species Act.

And for a while, federal authorities, pressured by environmentalists, seemed likely to use that law to shut down development in the valley, which happens to be the location of Palm Springs, Rancho Mirage and other pricey resorts, until a way could be found to save the lizard and to give it a congenial place to live.

These days, however, a lizard-rescue plan exists, and it has occasioned a fragile truce between developers and the lizard's protectors. Just a few weeks ago, even former President Gerald Ford, a resident of Rancho Mirage, patted Uma on the head at a lizard fund-raiser, lending his support to preservation efforts led by the Nature Conservancy, a national conservation group.

The lizard's improved image is largely the result of public perception that a plan to create a 13,000-acre, \$25 million preserve 12 miles south of Palm Springs on land once eyed by developers will succeed despite obstacles that had seemed as imposing as the desert itself.

Developers, having helped give the lizard a secure home, then would be free to proceed with future projects of their own without the specter of federal intervention should they happen to inconvenience or even squash a lizard or two.

Others here are beginning to look beyond the lizard to what may be the greatest virtue of the plan: the preservation of a giant parcel of pristine habitat that will become a kind of Central Park in a desert valley otherwise destined for development.

But there are problems, among them the cost of creating what is said to be the most expensive single-species conservation project ever attempted.

So far, about \$3 million in land has been purchased -- about \$1 million by the state of California and \$2 million by the Nature Conservancy, whose headquarters is in Arlington, Va. The rest must be raised from sundry sources: roughly \$10 million in federal money from the U.S. Fish and Wildlife Service and another \$5 million from the federal Bureau of Land Management through the sale of BLM lands. Valley developers are being called upon to contribute about \$7 million in so-called mitigation fees.

The money, in the end, may be the easy part. Negotiations over preserve boundaries in the growth-minded valley were as ticklish as a Middle East peace plan, and although an agreement exists, it is tenuous. "What we have here, essentially, is a finely tuned balance of terror," says Steve McCormick, an official of the Nature Conservancy's California office.

Developers at the moment are lizard lovers because under the truce they can continue to build so long as they pay mitigation fees -- now, about \$750 for each acre developed -- to help buy lands for the

preserve.

Environmentalists for their part feel that the current compromise plan is better than any deal the lizard is likely to get from a lawsuit. Time is also a factor, says Allen Muth, who heads a valley environmental coalition concerned about the lizard's future.

As much as 70% of the lizard's habitat already has disappeared beneath golf courses, condominiums and subdivisions in a valley grown from only 12,000 residents in 1940 to about 220,000 today.

That the fringe-toed lizard is on the Endangered Species List at all is largely the work of Wilbur Mayhew, a tenacious University of California at Riverside researcher who had trailed Uma for decades before he began to promote the endangered-species designation a dozen years ago.

At first Mr. Mayhew marveled at the creature's adaptation to the valley's wind-blown environment, where dunes are formed by highly localized wind patterns that make them unique.

The lizard's chiseled head, sharp jaw and superior neck muscles enable it to make headlong plunges into these dunes in order to escape predators, Mr. Mayhew says. The lizard, once underground, also has adjustable nostril openings that let it breathe the air between sand grains without inhaling sand.

In dunes outside the Coachella Valley, where grains of sand are either bigger or smaller and layered differently, the lizard can't survive. So in the early 1970s, when surveys began to indicate a rapid decline in the lizard population, Mr. Mayhew concluded that the animal's future lay in habitat conservation.

The lizard was something of an entering wedge: saving its habitat also would ensure the survival of scores of other animals and plants dependent on the same desert ecosystem.

"Listing the lizard was a tool to get at the habitat," Mr. Mayhew says. Indeed, several other Coachella Valley species -- including a pugnacious-looking bug called the desert cockroach -- were also getting scarce.

"But we settled on the lizard," recalls Mr. Muth, the environmentalist. "Politically, an endangered cockroach would have been hard to sell."

Ironically, in 1980, when the lizard finally made the official endangered species list, few valley developers thought that event meant much.

Just a few thousand lizards remained; sightings were infrequent. Conventional wisdom hereabouts held that developers were exempt from the act if they could show that there were no lizards on their property. Should any lizards be found, developers envisioned modest on-site "mitigation" -- perhaps they would leave a small part of their land undisturbed.

But friends of the lizards threatened a showdown over a clause in the Endangered Species Act that prohibits killing or harassing an endangered species even in the course of a lawful act -- during the development of property, for instance. They also contended that the lizard's habitat is its historical range -- the entire valley, not just the desert pockets where it is found today.

The matter seemed bound for court until the U.S. Fish and Wildlife Service, which administers the Endangered Species Act, suggested a compromise. The service would use recent act amendments to permit

developers to "incidentally take" lizards in the course of their projects. But permits would be issued only if the lizard's future were assured by a valley-wide habitat plan, says Gail Kobetich of the agency's California office.

The most logical plan, the service concluded, was Mr. Mayhew's old idea of a preserve. It might work if all sides were willing to contribute, Mr. Nobetich told the various factions.

The scheme got a boost from William Bone, the chairman of Sunrise Cos., a long-time valley resident and its largest real-estate developer. Mr. Bone's company had actually had a project stopped by the wildlife service on the ground that nothing had been done to protect the lizards thought to roam there.

Stunned and angry at first, Mr. Bone decided to talk instead of sue. He sent his lawyer, Mr. Selzer, on a mission to Mr. Muth, the lizards chief spokesman, to see what could be worked out. Their meeting, both men concede, was as amiable as a scorpion convention, but it was a prelude to compromise.

At about the same time, the Nature Conservancy, which has experience in pitching conservation to big business, got involved. The conservancy, whose specialty is acquiring endangered habitat, had come to the valley seeking about 2,000 acres of rare desert palm oases.

The land it was interested in happened to lie at the heart of a likely lizard preserve. Reluctant at first, the conservancy agreed to take on the more ambitious preserve project when it appeared that a valley-wide coalition was possible.

Today, the project has the smell of success. Many who once cursed the lizard now amuse outsiders with tales of its sand-swimming prowess. Lizard fund-raising parties are all the rage in the valley. Membership in the Lizard Club -- an informal gathering of those shepherding the project along -- confers status hereabouts.

"People even call me Mr. Lizard," says Mr. Selzer, who, as a member of the club, has been a useful go-between with developers. "I don't even mind," he says.

--The Wall Street Journal, July 1984

(submitted by Frances Dryden, Fort Lauderdale, Florida)

NEWS OF KHS MEMBERS

ADEL, IOWA. Ray Loraine of Adel will travel to South Carolina this week to take part in the Savannah River Ecology Laboratory's (SREL) Undergraduate Research participation program. SREL is located on the Savannah River plant, a department of energy nuclear facility located just east of Augusta, Ga. The University of Georgia staffs and operates the laboratory which assesses and monitors the effects of nuclear operations on the 192,000 acres maintained by the Department of Energy in South Carolina.

Extensive tracts of undisturbed natural hardwood forest, as well as black water stream and cypress-gum swamps are enclosed by the boundaries of the Savannah River Plant. Because of the intense security around the nuclear operations, the general public is denied access to 300 square

miles of land around the facilities. Long term ecological studies can therefore be carried out to evaluate the biological systems of the area.

Loraine is among the small number of highly qualified college junior and seniors who were selected to participate in the undergraduate program this year. As an undergraduate, Loraine will assist faculty scientists with ongoing research at SREL. In addition, each student must create and complete a research project of his own during the twelve week program. In return, the student receives academic credit from his respective institution, financial support from SREL during his participation in the program, and valuable research experience in his area of interest. Loraine's area of interest is herpetology, the study of amphibians and reptiles, and he will be involved with the work being done in this field.

Loraine will be involved with programs to evaluate the status of the American alligator, and ecological studies on a number of snake species, including the brown water snake and the eastern cottonmouth. Information in these areas is vital if the effects of heated effluents from nuclear reactors are to be assessed. Because of the stress placed on aquatic systems by effluents that may measure more than 150 F in temperature, some species are forced to evacuate some aquatic habitats. In other areas animals which normally hibernate during the winter, such as the alligator, may remain active year round because of the warm temperatures caused by cooled effluents farther away from the reactors. Some of these modified activity patterns are being investigated using snakes and alligators equiped with radio telemetry devices. Loraine will also assist in this research.

--The Dallas County News, 22 March 1984



FIG. 77.—*Chrysemys concinna*, in its third summer. x 1.

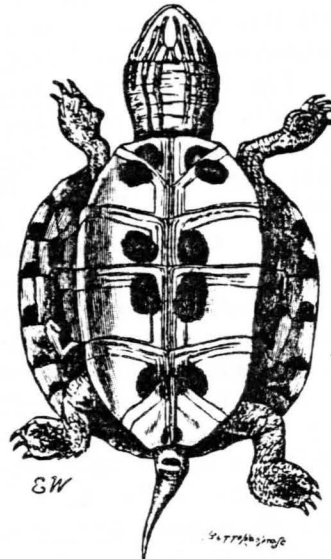


FIG. 78.—*Chrysemys concinna*, in its third summer. x 1.

FEATURE ARTICLES

THE MOST DANGEROUS SNAKE

In every field of endeavor there are particular questions that will be asked of old timers over and over again. For those in herpetology, the number one question seems to be, "What's the deadliest snake?" Many responses dance around the issue, citing statistics, toxicities, health of the victim and so on ad nauseum. The questioner walks away, slowly shaking his head as if to say, "He doesn't know either..."

Personally, I dislike the term "deadly". It is too vague, too imprecise to answer adequately. Dead is dead, and I cannot conceive of one creature being more dead than another dead creature. Dead is a constant, and a frog in the mouth of a Nerodia is in as deadly a situation as a frog taking college biology. Period.

So as not to skirt the issue, let us rephrase the question so it is more precise. Using the word "dangerous" to mean capable of and likely to cause harm, we may ask, what is the most dangerous snake. Certainly an adult anaconda is dangerous, or potentially so, but is it as dangerous as a cobra? You are less likely to be taken totally off guard by the large snake, and even then it requires time to act, time in which you could respond to the attacker. The cobra is swift, not necessarily more so than the boa; rather, it need strike only once and you are beyond the immediate help of companions, weapons or further maneuvering. In other words, even if you defeat the cobra, if it has struck you once then the battle for your life is not over. A direct corollary then would relate dangerous as a function of what has bitten you and how close to medical facilities you have to be to survive.

Of course, this interpretation redirects the question to "which snake has the most toxic venom?" To answer this, we seek out the elapids of Australia. Yes, Virginia, there is an answer. Sort of...

The Taipan (Oxyuranus scutellatus) has long been known as an extremely toxic reptile, perhaps the most dangerous snake of all. While certain Tiger Snakes (Notechis ater) have yielded more toxic venom, the quantities held by Taipans, combined with their more aggressive behavior, have rendered them more dangerous. It should already be apparent that I am equating a bite yielding a great deal of very toxic venom with a bite yielding a tiny bit of extremely toxic venom, when in fact, this does not seem to actually happen. From reports of bites of both species, quantity seems a major factor when considering the effects of envenomation by any very venomous snake.

Recent research indicates that the average venom yield from an adult Taipan would be enough to kill 94,000 mice. Yet a species known to science since 1879 has been shown to be more than twice as toxic, and it is the only other member of the Taipan's genus, the Small-scaled Snake, Oxyuranus microlepidotus. It wasn't discovered until 1979 just how toxic it was. Along with its coastal cousin, the Small-scaled Snake feeds upon mammals, unique for Australian elapids, and it is believed that it's extreme toxicity is related to the need for rapid killing of prey animals. These snakes cannot afford to hold on to a mammal while waiting for venom to take effect, for mammals can make quite a mess out

of a snake in very short order.

But consider the power to kill such a snake has. Before 1955 there was no antivenin for the Taipan, and virtually all victims of its bite died. Now a species with twice the efficacy has been brought to light. If we use "dangerous" to mean potential to kill, then the Small-scaled Snake must surely claim that title.

Now that we have painted the picture of a most horrible sounding creature, let us put it in proper perspective. For the most part, the snake lives in largely unpopulated regions of Australia's eastern deserts, where it feeds upon rodents and small marsupials. So far, there are no horror stories to accompany this snake. Lest we think of highly venomous qualities as being uniquely serpentine, take the case of the Sea Wasp, Chironex fleckeri, a jellyfish found off northern Australia. Considered by some as the world's most dangerous venomous animal, it has been known to kill in less than three minutes, and has claimed many human victims, for it frequents beach areas. If contact with humans is added to the equation of dangerous, then the Small-scaled Snake becomes somewhat less forbidding.

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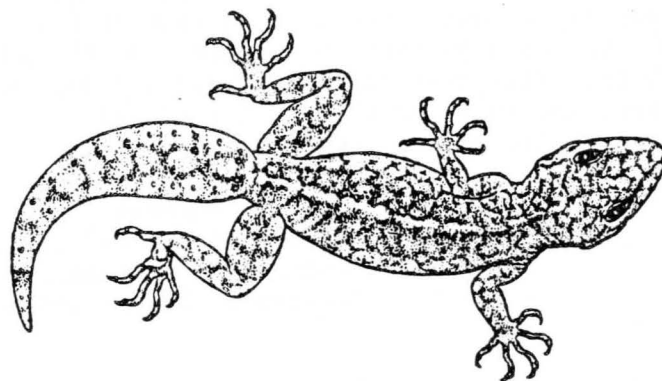


Fig. 18.—*Gymnodactylus lawderanus*.

BOOK REVIEWS

Ross, Richard A. 1984. The Bacterial Diseases of Reptiles. Institute for Herpetological Research, P.O. Box 2227, Stanford, California, 94305. Price: \$20.00 plus \$1.25 for first class postage. 114 pages + 8 pages of color plates.

This fine work, The Bacterial Disease of Reptiles, Their Epidemiology, Control, Diagnosis and Treatment is the result of some 10 years of research in the laboratory and the field by Dr. Richard Ross of the Herpetological Research Institute. It describes the six common clinical diseases related to Gram-negative bacteria (mouth rot, panophthalmitis, infections of throat area, respiratory infections, scale rot, and shell rot), how to recognize them, and most important, how to treat these diseases and how to deal with enteric bacterial diseases. According to this work, most bacteria are classified as Gram-negative or Gram-positive, "depending on their staining characteristics in the laboratory." In man, most bacterial diseases come from Gram-positive bacteria, but in reptiles, from Gram-negative bacteria. The Gram-negative bacteria are harder to treat and the medications used are more toxic, accounting for many of the problems in herpetological husbandry. Dr. Ross gives you exhaustive details concerning correct dosage of drugs, how they should be administered, and other information the average vet you might take your ailing reptile to would need.

Section I of the book reports on field studies by Ross in Papua New Guinea to see what bacterial flora wild snakes carry. It also discusses how the diseases are passed in captivity, where they come from in the wild reptiles, and early attempts to control diseases. Section II covers the identification, diagnosis, and treatment of diseases caused by bacteria. The Appendices cover basic techniques of treatment, a glossary of terms, dosage guide for drugs, and a useful cross-index for human and veterinary antibiotics.

The book has good black & white and color photographs. The price is a bit steep for a paperback of this size, but considering that the Institute for Herpetological Research is non-profit, and the cost of printing a book like this privately (especially to reproduce quality color plates, as was done here), it is understandable. At any rate, the profits of the book go back to support the important research Dr. Ross and the IHR do. This book fills an important gap in the literature on reptile care, and is a "must" for your library if you are serious about keeping and breeding healthy reptiles.

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Seigel, R.A. et al. (eds). 1984. Vertebrate Ecology and Systematics. Special Publication No. 10, Museum of Natural History, The University of Kansas, Lawrence, Kansas, 66045. 278 pp, paper, \$18.50 + 3.5% sales tax (Kansas Residents only) + 10% shipping and handling.

In June of 1980, Dr. Henry S. Fitch retired from the University of Kansas after 32 years in the Department of Systematics and Ecology. In August, 1980, a symposium was held in honor of this occasion. Now, four years later, at last! The corresponding book is finally here! Vertebrate Ecology and Systematics is essentially a compilation of the papers presented at the 1980 symposium.

Don't pick up this volume expecting a handbook on principles of systematics and ecology--the title may be misleading. This is not a textbook. The book might be more aptly titled, A Tribute to Henry S. Fitch--Symposium on Vertebrate Ecology and Systematics. The emphasis and unifying factor of the volume is Fitch. Without recognition of this, the book might seem a rather hodge-podge collection of scientific papers.

However, as a tribute to Dr. Fitch, Vertebrate Ecology and Systematics is commendable. Indeed, the diversity of topics and species presented here is indicative of the breadth of Fitch's career. Furthermore, both the subject matter and taxonomic emphasis of the 18 papers are weighted according to Fitch's own research interests. This means the majority of presentations are ecological studies on reptiles. Each of the papers reflects the meticulous field technique and research thoroughness for which Dr. Fitch have become a trademark.

The volume itself is sturdily bound in paper and printed on quality paper. It has an abundance of tables and figures (164 in all) including photographs, maps, and a color plate of Anolis fitchi, a new Ecuadorian species named for Fitch in recognition of his work on lizards of that region. The color plate was painted by KHS member Linda Trueb. The text is divided into four sections: an introduction, including a chronological bibliography of Dr. Fitch's published contributions, and three sections of papers. The papers are divided into three broad topics: Reproductive Biology and Population Dynamics; Feeding and Behavior; and Systematics and Biogeography.

Despite (or perhaps, because of) it's belated arrival, Vertebrate Ecology and Systematics is well-organized, and the papers are exemplary. The volume is worth having on hand, all you aspiring and currently laboring field biologists, herpetologists, and Fitch fans.

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LETTERS TO THE EDITOR

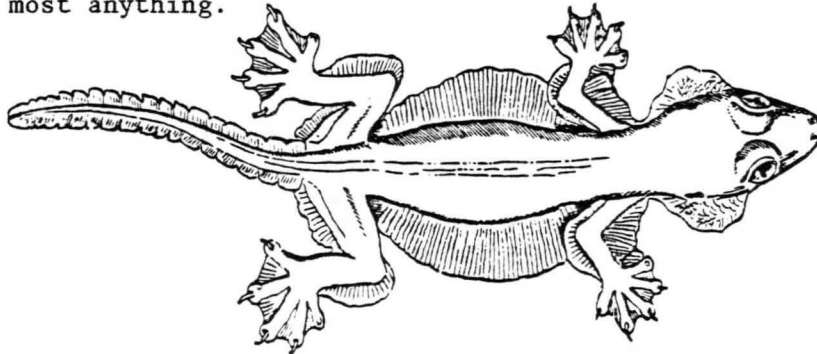
Esteemed Editor,

I have just finished reading, "I was Eaten by a Giant Snake" (KHS Newsletter 56:8-9) and am a bit foggy on the details (or maybe I just misunderstood...). As I read it, a 26-foot Boa constrictor (shatters the old record of 18 feet) drowns a girl without constricting her and eats her feet first. Upon being rescued by natives (who cleverly "sliced [the snake] from end to end" although her head was still visible) she came back to life despite having water in her lungs. Quite remarkable! Of course, the Miami spokesman explained it all fine ("boa constrictors had been known to swallow small Asians"). But were the Asians vacationing in Columbia, or the boas visiting the "Old Country"? I feel the \$1.5 million was behind it. Or maybe I'm just another of the confused teenagers that Mr. Saris referred to.

Keep up the humorous stories.

--Bill Taylor; Houston, Texas

EDITOR'S REPLY: There's an old saying that goes, "humor is where you find it." Apparently the reverse may be true, too. The well-known and respected Kansas Wildlife magazine picked up the story of snake-eats-girl from KHS Newsletter 56 (we got in from the National Enquirer, by the way) and ran it on the "Nature" page of their September/October issue. I thought the story was absurd enough to see through, but when it comes to snakes, people seem to be willing to believe most anything.



A FINAL WORD FROM YOUR EDITOR

Fredonia really isn't hard to find on the map, I already checked, so we expect to see a large turnout for the meeting in November. Remember that as with all KHS functions, there is no charge to get in, and guests are always welcome. Every guest is a potential KHS member, you know...

In the Eternal Gratitude department this issue, I must thank for help assembling, labeling, and sorting the last newsletter (it's a nasty job, but somebody's gotta do it) Martha Gronniger, Jocelyn Kitchen, and Jennifer Volpe. Couldn't have done it without you...