

June, 1988

ANNOUNCEMENTS

KHS Fall Field Trip Planned for Clark County, Kansas

The Fall 1988 field trip will take place the first weekend in October in Clark County, Kansas.

Clark County State Lake is about 25 miles from Ashland and a bit closer to Minneola. If you are arriving from the north on Highway 54, take Highway 94 south to the lake. If you are arriving from southern Kansas, it is suggested that you come on Highway 160 as it is a beautiful, scenic drive and leads right into Ashland. The "lake road," as it is locally known, is one of the prettiest drives in the county. It takes you up in the hills through open cattle range. You will see rocky hillsides and crested buttes, a view that extends for miles around. You will also pass through Horsehead Bend, where legend says a gang of cattle rustlers met their fate by hanging.

The lake is set down in a valley. It is a state fishing lake, and a pretty popular spot in southwestern Kansas. There are primitive camping areas and primitive indoor restrooms, but no camping fees and no hook-ups. If it is dry weather, it is recommended to camp west of the north end of the lake. If not, try the east central side of the lake (the road is paved to this area only). Beaver are active below the dam. Hiking trails are on the north end, and there are grates for fires.

Hotel and motel accommodations are available nearby.

In Ashland, there is Hardesty House, a historic hotel with antique furnishings. It is \$19.95 single, \$23.95 double, phone (316) 635-2911. The Red Hills Motel is also nice, at \$19.00 single and \$22.00 double, \$25.00 double room. They offer a 5% discount to KHS members. Phone (316) 635-2239. There is a Quick Stop close to the motel and a grocery store downtown. Restaurants include Hardesty House (evening meals only) and Ranch House (all meals). Ashland also has the Pioneer Museum and Artland Gallery. There is a hospital in Ashland with an excellent team of trained emergency medical technicians.

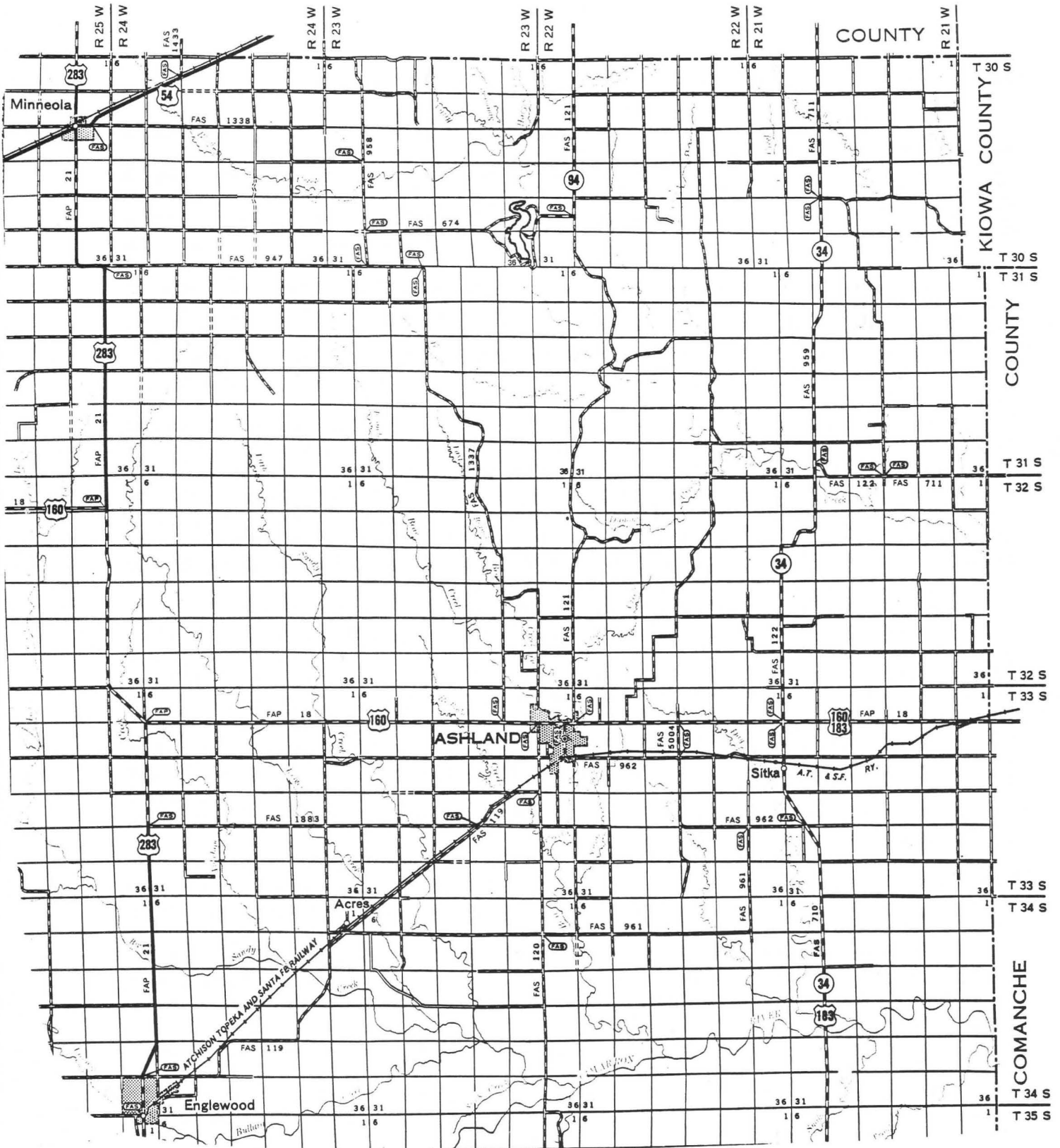
In Sitka you will find the Old Weigh Station Restaurant on Highway 34. It has great atmosphere (lots of antiques in an old school house). Joe and Suzanne Collins highly recommend this establishment. Phone (316) 635-2671.

Two hotels are located in Minneola, The Holiday Motel (885-4243) and the Tucker Motel (885-4248). A recommended restaurant is Uncle Larry's Smoke House (885-4858). Minneola also has a hospital, telephone 885-4264.

In Bucklin, there are two restaurants, the Bucklin Cafe (826-3862) and JC's Deli (826-3661).

In the southern part of Clark County is the Cimarron River, which offers a different terrain. Interesting sites include St.

Jacob's Well and the Big Basin.
 For more information, contact:
 Richard Stein
 (316) 635-2285 (office)
 (316) 635-2563 (home)



Exotic Herps, Exotic Places

The Regional Society Liason Committee of the Society for the Study of Amphibians and Reptiles is sponsoring the 12th annual Regional Society Workshop, "Exotic Places, Exotic Herps: Volume II" this summer. The workshop will be on 25 June 1988 in Ann Arbor, Michigan, during the combined annual meeting of the SSAR, The Herpetologists' League, and the American Society of Ichthyologists and Herpetologists, 24-29 June.

The registration fee for the 1988 Joint Annual Meeting is \$50 regular and \$25 student, with a late fee of \$20 after 1 June 1988. The registration fee includes the Welcoming Reception on the 24th, a barbeque picnic, refreshments, abstract book, and admittance to all conference activities including the Regional Society Workshop. For a copy of the meeting announcement or further information, contact:

Gerald Smith
Museum of Zoology
The University of Michigan
Ann Arbor, Michigan 48109

The papers to be presented at the workshop are:

- "The Herpetofauna of a Tropical Wet Forest in Northeast Costa Rica: La Selva Biological Station," David L. Hardy
- "Rainforest Fauna of Vaupes, Colombia," William W. Lamar
- "Reptiles in Paradise," Richard Sajdak
- "A Texan in Paradise," Greg Mengden
- "A Visit to the Atacama Desert," James Dixon
- "The Herpetofauna of Stephens Island, Cook Strait, New Zealand," James Gillingham
- "Herping in the High Andes," John E. Simmons
- "Herpetofauna of a Tropical White Sand Rainforest, Cameroon, Africa," Norman J. Scott, Jr.

--Stephen Hammack, Chairman
SSAR Regional Society
Liason Committee
Dallas, Texas

Pesticide Labeling and You

The Environmental Protection Agency (EPA) is inviting public comment on an Endangered Species Program which is intended to ensure that pesticide use is not likely to jeopardize endangered species. The recently issued notice describes the proposed program which depends upon pesticide product labeling and endangered species habitat maps to achieve the goal of protecting jeopardized endangered species. However, the EPA is willing to entertain comments on other approaches which would achieve the goal, as well as comments on the original conceptual design. Initially, the EPA proposed that the program would apply to certain pesticide products registered for use on rangeland and/or pastureland; on crops of corn, cotton, soybeans, sorghum, wheat, oats, barley, or rye; in forests; or as mosquito larvicides. Copies of the proposed program appeared in the Federal Register,

volume 53, No. 46, Wednesday, 9 March 1988, on pages 7716 to 7721. See your local library for a copy of the Federal Register.

Written comments, identified with the document control number "OPP-36154" should be submitted in triplicate, by mail to:

Information Services Section
Program Management and Support Division (TS-757C)
Office of Pesticide Programs
Environmental Protection Agency
401 M St SW
Washington, D.C. 20460

For further information, contact Larry Turner, Ecological Effects Branch, Hazard Evaluation Division (TS-769C), Office of Pesticide Programs, Environmental Protection Agency, 401 M St SW, Washington, D.C. or call (703) 557-1007.

Amphibians in Kansas and Diversity Endangered

Two new exhibits at the Museum of Natural History of the University of Kansas in Lawrence will be of interest to KHS Members. "Amphibians in Kansas" is an exhibit of stunning photographs of our twenty-eight species of native frogs, toads, and salamanders. The exhibit labels explain the yearly life cycles of these fascinating animals and some of the environmental dangers they face. Photographs are by KHS members Joseph T. Collins and Suzanne Collins of Lawrence. The exhibit may be seen on the sixth floor of the museum, near the live snake exhibit.

"Diversity Endangered" will run 1 July until 2 October, and examine one of the most important issues of this century--the threat to the fragile and complex framework on which all life forms on earth depend. Arable land and tropical forests are particularly at risk. The exhibit will include specimens from the museum and the Snow Entomological Museum, as well as colorful poster panels and a video tape produced by the Smithsonian Institution Traveling Exhibition Service, with support of the National Science Foundation.

(Thanks to Christine A. Winner, Public Relations Assistant at the Museum of Natural History, for supplying the above information)

Kansas Nongame Photo Contest

The deadline for the fourth annual Chikadee Checkoff Photo Contest is 1 July 1988. Entering the contest provides an opportunity for fame and fortune. Copies of the winning photograph will be used to promote the Chikadee Checkoff during the 1989 tax season, plus the winners receive prizes of \$100, \$50 and \$25.

Anyone who lives or works in Kansas may enter the contest. Department of Wildlife and Parks employees are excluded.

Kodachrome color slides of any nongame mammal, bird, reptile, amphibian, fish or invertebrate found in Kansas can be entered in the contest. Nongame species are those not protected under hunting, fishing, or trapping regulations. A group of Department employees will judge each entry based on its quality,

composition, and general appeal. All slides will be returned, although the Department reserves the right to copy and print slides for the purpose of promoting the Chikadee Checkoff.

To enter the 1988 Photo Contest (be sure to include your name and address on each slide), send your slides to:

Photo Contest
Department of Wildlife and Parks
RR 2, Box 54-A
Pratt, Kansas 67124-9599

KHS BUSINESS

Harper County KHS Field Trip Well Attended

KHS members and their friends started arriving at the Anthony City Lake near Anthony, Kansas, at about 7:00 p.m. the evening of Friday, 15 April 1988. It was a beautiful but cool evening and we all looked forward to the first collecting field trip of the year.

One of the first orders of business was to get a campfire started. KHS President Jeff Whipple quickly discovered the fact that there was almost no firewood available. However, the lake patrol soon brought a pick-up load of wood for the group to use, and shortly a pleasant fire was lighting the night.

People continued to arrive throughout the evening, and by Saturday morning there were about forty people at the lake, ready to look for herps. Soon the campers from the Trade Winds Motel (located in downtown Anthony) arrived and the group was off herping.

It had been a very cool evening and few herps were found before noon. The sun warmed the ground, however, by early afternoon, and the collecting picked up somewhat as a caravan of twenty or so vehicles moved through Harper County, keeping in contact by CB radio.

The total count of those attending was somewhere between 50 and 60 people. They included a group from Clark County headed by Richard Stein; Scout Pack 383 from Argonia, headed by Steve Rhodes; and others from Wichita, Lawrence, Topeka, Dodge City, Caldwell, Kansas City, Emporia, Eudora and an exchange student from Holland.

Species of Amphibians and Reptiles Observed or Collected on the 1988 Annual KHS Field Trip to Harper County (15-17 April)

Blanchard's Cricket Frog, Acris crepitans blanchardi
Spotted Chorus Frog, Pseudacris clarkii
Strecker's Chorus Frog, Pseudacris streckeri streckeri
Western Chorus Frog, Pseudacris triseriata triseriata
Plains Leopard Frog, Rana blairi
Bullfrog, Rana catesbeiana

Common Snapping Turtle, Chelydra serpentina serpentina
Yellow Mud Turtle, Kinosternon flavescens flavescens

Western Painted Turtle, Chrysemys picta bellii
Red-eared Slider, Chrysemys scripta elegans
Ornate Box Turtle, Terrapene ornata ornata
Softshell, Trionyx sp.

Eastern Collared Lizard, Crotaphytus collaris collaris
Texas Horned Lizard, Phrynosoma cornutum
Prairie-lined Racerunner, Cnemidophorus sexlineatus viridis

Prairie Ringneck Snake, Diadophis punctatus arnyi
Eastern Yellowbelly Racer, Coluber constrictor flaviventris
Blotched Water Snake, Nerodia erythrogaster transversa
Western Ribbon Snake, Thamnophis proximus proximus
Western Plains Garter Snake, Thamnophis radix haydenii
Red-sided Garter Snake, Thamnophis sirtalis parietalis
Western Massasauga, Sistrurus catenatus tergeminus

--Larry Miller
Caldwell, Kansas

KHS T-Shirts to be Reprinted by Popular Demand

The KHS will have the popular T-shirt designed by Marty Capron in 1986 reprinted due to popular demand. The shirt, which features an Ornate Box Turtle drawn inside an outline of a map of Kansas, will be available in the following sizes: small youth, medium youth, large youth, small adult, medium adult, large adult, extra large adult.

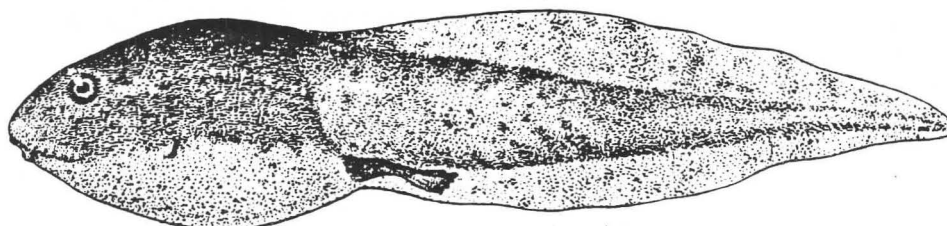
The shirts will also have KANSAS HERPETOLOGICAL SOCIETY and ORNATE BOX TURTLE - STATE REPTILE printed on them. They will be a 50% cotton blend shirt and will be available in light blue with a black imprint only.

All shirts will cost \$6.50 each and will be delivered at the KHS fall field trip to be held in Clark County the first weekend in October (see field trip details elsewhere in this newsletter). They may also be mailed to the purchaser for an extra \$1.00 per shirt shipping and handling. All profits from the shirt sales will go to the Kansas Herpetological Society.

Mail your order to:

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

Orders MUST be received no later than 20 July 1988. Make checks payable to the KANSAS HERPETOLOGICAL SOCIETY. Be sure to include the shirt sizes with your order, along with your name and complete home address.



Suggestions for a More Enjoyable KHS Field Trip

Field trips have different meanings to different people. It is for this reason that the KHS officers decided to put together a list of suggestions for its members as to what to expect on a KHS field trip.

KHS field trips are designed to increase personal and scientific knowledge of different species of amphibians and reptiles, educate members and their friends about amphibians and reptiles, give those interested in herpetology a chance to work together and share knowledge, and for social reasons. The field trip vary according to where they are held, when they are held, and those attending. Thus, the following are only general suggestions.

First, it is important to remember that transportation is almost always needed by those attending. Most trips require meeting at a central locality such as a lake or park. The herpetological activities then take place in the surrounding area, sometimes many miles from the central locality. The KHS does not provide transportation.

Everyone collecting amphibians and reptiles in the state of Kansas is required by law to have a valid scientific collecting permit from the Kansas Department of Wildlife and Parks. Applications for these permits are available from the Kansas Department of Wildlife and Parks by writing them at Box 54A, RR 2, Pratt, Kansas 67124.

Field trips often require the turning of rocks in order to locate critters. Many herpetologists have found it advantageous to invest in a good pair of gloves and a strong snake hook or pick. All rocks, logs and so forth that are turned over to look for animals should be returned to the position in which they were found. Take extra care not to destroy animal habitat--show respect for natural Kansas.

The field trips often end up around aquatic habitat. It is almost a must to have extra shoes and changes of dry clothing when attending a KHS field trip.

Many people that attend KHS field trips camp rather than stay in local motels. It is always important to bring everything needed for successful camping. Many of the remote areas where field trips are held do not have items that might be needed. Never assume that you will be able to find what you need in small Kansas towns, whose restaurants often close as early as 6:00 p.m.

Almost all of the collecting that takes place on KHS field trips is on private land. Permission should be obtained before entering private land. Most land owners are more than happy to allow herpetologists to have access to their land, but they do like to know who is on the land.

Do not to drive over farmland or any other private land unless you are sure you have permission. We must always keep good relations with land owners.

Everyone interested in learning about amphibians and reptiles is welcome to attend KHS field trips. Children should always be accompanied by an adult. Although children (those persons under 13 years old) are encouraged to attend KHS meetings, please keep in mind that adults predominate in numbers at these gatherings. There are dangers involved with the collecting

of amphibians and reptiles and the KHS is not responsible for accidents.

It is suggested that everyone attending KHS field trips make an attempt to find out just what animals may be found in the area before the trip. Consult Amphibians and Reptiles in Kansas (Collins, 1982)--it can be a great help.

Everyone must understand that some trips are much more productive than others. The KHS has no control over factors such as weather.

Many KHS members have found it convenient to have a CB radio in their vehicles on field trips. The KHS uses channel number four to communicate with one another.

Lastly, the KHS would like for everyone to respect the rights of others. Our organization is made up of a wide diversity of people with many interests. We must try to work together in an effort to further herpetological knowledge. That work should be very enjoyable for everyone.

We hope to see you at the next field trip of the Kansas Herpetological Society.

--Larry Miller
KHS Secretary/Treasurer

HERPETOLOGICAL CIRCULARS NO. 16.

HERPETOLOGICAL COLLECTING AND COLLECTIONS MANAGEMENT

THIS 70-PAGE CIRCULAR COVERS
FIELD COLLECTING, PRESERVATION, AND
MAINTAINING MUSEUM COLLECTIONS OF PRESERVED REPTILES AND
AMPHIBIANS. IT HAS A COMPREHENSIVE 350-ENTRY
BIBLIOGRAPHY OF COLLECTING AND PRESERVATION TECHNIQUES.
IT IS A NECESSITY FOR ANYONE WHO MAINTAINS OR WORKS
WITH PRESERVED AMPHIBIANS AND REPTILES.



Single copies of this circular are available at U.S. \$6.00 each including postage. Orders may be sent to Douglas H. Taylor, Dept. of Zoology, Miami Univ., Oxford, Ohio 45056

ALL THE ZOOS THAT'S FIT TO PRINT

The following news items are all from the American Association of Zoological Parks and Aquariums (AAZPA) Newsletter, and were supplied by Ruth Gennrich (Lawrence).

From AAZPA Newsletter 29(4), April 1988:

Lincoln Park Zoo Announces the Hatching of a Radiated Tortoise

A radiated tortoise (Geochelone radiata) hatched at the Lincoln Park Zoological Gardens, Chicago, Illinois, on 21 January 1988. Five of the six eggs laid did not hatch, but all showed signs of fertility. After an incubation period of 116 days, the hatchling's weight at birth was 19.8 grams. Both sire and dam were wild caught and have been in the collection since 1969. This is a first hatching of this species at the zoo and marks a significant contribution to the Species Survival Plan Program.

Blue Poison-Dart Frogs Hatched at the National Aquarium in Baltimore

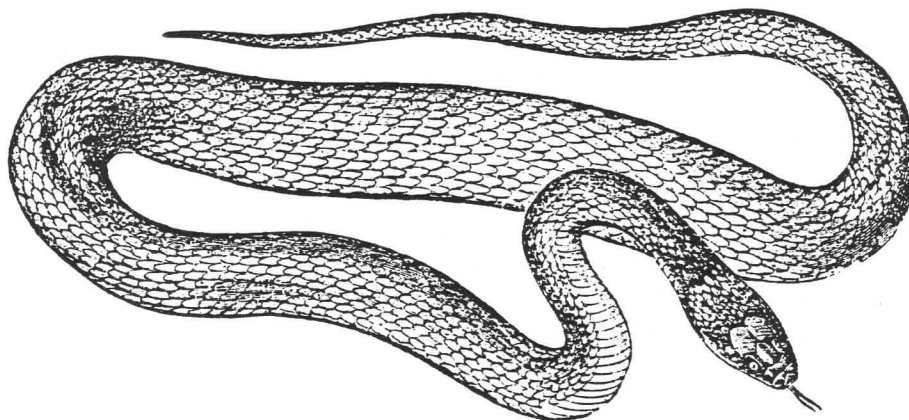
The blue poison-dart frog (Dendrobates azureus) is a large, relatively rare species that was described as recently as 1968. Its range is restricted to a few "forest-islands" in the Sipaliwini savannah of southern Suriname. The National Aquarium in Baltimore has maintained a group of adult frogs for exhibition and captive reproduction purposes since November 1983, but have been unable to obtain fertile eggs that produced viable young until November 1987. Although the first two frogs that metamorphosed had weakened (spindled) front limbs, the following six frogs have proved to be perfectly healthy. Along with these six frogs, four tadpoles are also currently being raised and fertile egg production continues. Improvements in diet, higher humidity and lower population density seem to have contributed to this success. This is believed to be the first U.S. captive reproduction for this species.

From AAZPA Newsletter 29(5), May 1988:

Mauritius Lowland Forest Day Geckos Hatched at the Fresno Zoo

Forty-nine (0/39/10) Mauritius lowland forest day geckos (Phelsuma quimbeaui quimbeaui) hatched from 33 separate clutches of eggs at the Fresno Zoo during 1987. Hatching times varied from 31-128 days at temperatures of 73-85 F. All of the offspring were from f-1 and f-2 parents maintained in two separate off-display breeding enclosures housing 1/4 and 1/6 adults respectively. Neonates fed on fresh papaya dusted with shaved cuttlebone provided daily and on pinhead crickets and vestigial-winged fruit flies presented on an every-other-day basis. Up to

five neonates were housed together, according to size, in 16 x 12 x 12-inch enclosures. Misting portions of each enclosure twice daily proved critical in keeping infant mortality at a minimum. Hatchlings from the first seven months of 1987 are now coming into breeding condition.



KHS BRINGS YOU NEWS OF THE WORLD AND BEYOND

Aussie Hippies Getting High on Toad Cocktails

SYDNEY, Australia--Hippies in Australia's outback are forsaking traditional drugs and getting their kicks from cane toads [Bufo marinus], which when boiled produce a slimy and potentially lethal cocktail, police say.

"People taking it experience a trip similar to that resulting from LSD," said Inspector Syd Churchill of Cairns Police in northeast Australia. "It is, by all accounts, a very potent drug."

Churchill told the Sydney Morning Herald newspaper that cane toads, which are reviled across Australia for their ugly appearance, are being cooked by drug users because they are plentiful while narcotics like marijuana and heroin are in short supply or expensive.

"The preparation method involves boiling toads in a billy (a pot) for a few minutes. The toads are then removed, and the somewhat treacly substance behind is drunk," said Churchill.

But he warned that bufotenine, the substance contained in two glands behind the toad's head, is a toxin that can be fatal.

Churchill did not mention if the practice is widespread, nor whether there had been any arrests or fatalities. Cairns police said he was not available for comment Monday.

However, an expert in cane toads, Dr. Robert Endean of Queensland University's zoology department, said he was aware 10 years ago that people in the outback were getting high from chewing or smoking cane toad skins.

"It is definitely hallucinogenic," Endean told the Associated Press.

--Lawrence Journal World, 19 April 1988
(submitted by Irving Street, Sibleyville)

Illicit Trade Is Built on Reptiles in West

PHOENIX--Wearing high boots and carrying long poles and burlap bags, law enforcement officers invaded homes, shops and offices in Arizona and eight other states earlier this month, seizing hundreds of rattlesnakes and exotic crawling desert creatures.

More than a dozen people were arrested, and the authorities said they expected to arrest more after they examine sales records seized under search warrants executed during the raids on a big business in the West, the commercial poaching of snakes and other wildlife.

According to state and Federal officials, hundreds of people are engaged in trapping wildlife, much of it protected by state or Federal laws, and selling it to collectors in this country and abroad.

Why would anyone collect rattlesnakes?

"It's their hobby," said Jim Whitham, a law enforcement officer for the Arizona Game and Fish Department. "To them, it's like collecting classic cars."

"Their object is to obtain a collection that is unique and dangerous," said Gregory L. Laret, deputy chief of the Wildlife Protection Division of the California Department of Fish and Game.

Investigators say tarantulas, Gila monsters, lizards, black bears and a wide range of other wildlife found in the mountains and deserts of the West are also being poached in the wild.

Because it is illegal and difficult to police, no one has determined the full extent of the poaching. Based on evidence seized during the raids earlier this month and previous investigations, officials estimate the volume of illicit sales runs into many millions of dollars annually across the country.

"We know of people we suspect are making \$50,000 to \$60,000 a year in reptile poaching--and more," Mr. Laret said. "For people who know what they're doing, it can be very lucrative."

"The value of a rattlesnake," Mr. Laret said, "is partly determined by its size and color, and whether it has a unique pattern. The prices range from \$20 up to \$350 or \$500 in some cases. The collectors get together and compare their collections and exchange critters; the better looking ones command the highest prices."

The raids in Arizona, California, Florida, Texas, Ohio, Virginia, Illinois, Oklahoma and Louisiana followed a two-year undercover investigation in which Arizona investigators opened a store here, Black River Trading Company, that was intended to identify illegal poachers and their customers.

The commercial poaching of deer and certain marine life such as abalone, an increasingly rare shellfish found on the California coast, has long been a problem for wildlife officials. But in recent years, they say, the commercial harvest of protected species has grown to include a diverse range of wildlife.

In the remote mountains of northern California, officials say that scores of black bears are being slaughtered annually by riflemen who remove their gall bladders and sell them to Asians in this country as medicinal agents or send them abroad, where

they can be sold for more than \$2,500. The bear's paws and teeth are often sold for jewelry too, adding to the poacher's income, investigators say.

Several days ago, near the town of Nogales on the Arizona-Mexican border, two teen-age boys stumbled across several cardboard boxes on a side street. When they opened the boxes they found more than 400 tarantulas, alive and wiggling, encased in individual plastic envelopes. Police officials said they suspected the tarantulas were intended for sale as pets and had been either abandoned or left temporarily by poachers or smugglers. The boxes also contained six snakes they said were probably intended for collectors.

In Arizona, several types of very rare rattlesnakes were seized at the homes of dealers along with hundreds of desert creatures, including Gila monsters, a large venomous lizard found in the American Southwest. A Gila monster, Mr. Whitham said, brings \$75 to \$150 on the local market, depending on its size and color, and as much as \$500 from collectors in Germany and Japan.

In California, the seizures included 149 snakes, including two cobras and a rare and poisonous gaboon viper imported illegally into this country by dealers for re-sale to collectors.

State and Federal laws prohibit commercial trafficking in a variety of wildlife species. In Arizona, for example, those convicted of trafficking in certain protected species are subject to fines and imprisonment of up to 18 months. But investigators say that the laws meant to protect rare species from extinction had, in effect, placed a premium on them, making them even more sought-after by dealers and collectors.

"You get all kinds," Mr. Whitham said of the wildlife collectors. "Some are good ol' boy types, some are professional people, scientific people; these people come from all walks of life; nothing surprises me."

--The New York Times, 26 January 1988
(submitted by Suzanne Collins, Lawrence)

Parish Needs Snake Laws

Editor, News-Banner;

Spring is almost here and forests and swamps of St. Tammany Parish are about to be invaded by hordes of amateur and professional herpetologists.

They know this "Emerald Triangle" called St. Tammany contains tangible treasure, in the form of some of the most sought after and rarest snakes to be found on the North American Continent.

Preparations are being made now--look sticks, P. tongs and L. rods are being dusted off in Kansas, sacks and pillow cases are being folded and boxed in New Jersey, field gear is being listed, checked off and loaded into vans.

Phone calls and meetings are taking place throughout the country between profiteer and scientists as well, to devise and coordinate plans which will eventually be implemented to collect specific species of snakes, some found only in this area, thus

depleting St. Tammany Parish's population of rare serpent life.

The object of the collection is seldom for scientific research, it is most often motivated by profit, and what a lucrative venture it remains, with rare snake values not to be believed by anyone other than those who are directly involved in the business of reptile collection.

The more common species of snakes shot by so-called sportsmen for target practice, the occasional snake decapitated on a family outing or those snakes which meet theirs under the tires of a car are few in number compared to the vast amount of rare snakes collected through the highly specialized and systematic means employed by seasoned herpetologists.

There is a means open by which to know how many rare species are being taken out of this area without counting them as they're bagged. That information is readily available and offered to the inner circle of advanced collectors through a coded underground price list compiled by the predominant herprofiteers.

The state of Louisiana's Department of Wildlife and Fisheries has recently requested donation of all or part of state income tax refunds to be used to put together a program for the protection of non-game wildlife, which includes snakes.

However, the aspect of protection sought by the state for snakes is in direct contradiction to the law of St. Tammany Parish, which stipulates and designates snakes be classified as vermin, calling for their eradication. This law, ignorant as it may be, does most certainly classify snakes in the same category as rats, lice, ticks, fleas and flies. This law remains on the books to this day.

With this fact in mind, it's not difficult to understand why St. Tammany's is considered to be open season for snake hunting, by any and all herpetologists and herprofiteers.

If the same operation of snakenapping, which takes place annually in St. Tammany Parish, was attempted in the state of Florida or California, and if the snakenappers were apprehended by law enforcement agents, the result would be arrests, confiscations and fines.

It would take an enlightened, concerned public working in conjunction with parish government to effect and bring into being laws to protect the rare reptile life of this parish. This is the only means by which our wildlife refuges can continue to be the home of one our our most valuable possessions, our rare and fascinating living jewels, our (vanishing) serpents.

A long time ago, a man named Thomas Coffey said, "The things our children will have tomorrow are only those we will leave for them today." I wonder just how much is left from yesterday for us to have today.

--Joseph Culotta, Jr., Treas. STPZS

--The St. Tammany News-Banner, week of 13 March 1988
(submitted by Rich Seigel, Hammond, Louisiana)



Snakebite Incident in Andover, Kansas

Five-year-old Jacob Gourley of Andover, Kansas, was in fair condition Monday in a Wichita hospital, recovering from a snake bite. He learned the hard way that idyllic settings can harbor dangerous inhabitants. Jacob was bitten on the ankle, one of the most common spots for snakebite.

He was bitten Sunday while on a fishing trip to a pond that his parents, Steve and Kathy Gourley, lease near Dexter in south-east Kansas.

"He started screaming, 'Snake,' and he was beating at the ground with his fishing pole," said Kathy Gourley. "We assumed he had seen one. Then he pulled down his sock and showed us the bite. His father ran over and started sucking the venom out."

The Andover Elementary School student was rushed to the hospital in nearby Cedar Vale, where doctors plied him with antivenom drugs. The critically ill boy was rushed by helicopter to HCA Wesley Medical Center in Wichita, where surgeons operated on his leg to control the spreading poison.

No one but Jacob actually saw the snake, but doctors told his mother that he probably was bitten by a large rattler.

"Our emergency room director said it is fairly unusual to get a snakebite case," said Wesley spokeswoman Tammy Allen. "We only get two or three a year."

Cowley County harbors two and possibly three poisonous snakes.

The pygmy rattler, or Massassagua, and the copperhead have both been documented in the county by Joe Collins, author of "Amphibians and Reptiles in Kansas," according to Cowley County Game Protector Gene McCauley.

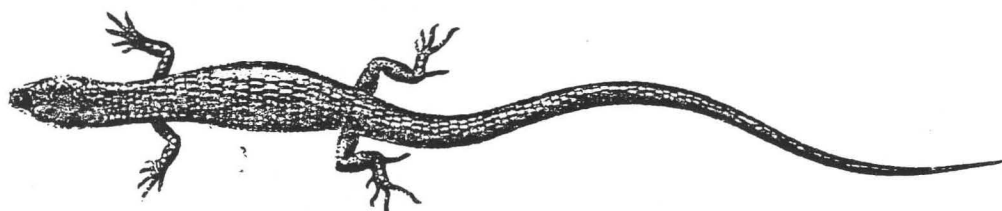
McCauley said he has also heard reports of a "velvet tail" rattlesnake in the eastern part of the county.

The timber rattler, however, has never been documented in Cowley County. Specimens have been collected from both Chautauqua and Elk counties, to the east and northeast.

"I heard guys talking about velvet-tail rattlers in the Silver Creek area. The only thing I can think is that would be a timber or some sub-species of timber. I've never seen any myself," said McCauley.

By Monday evening, Jacob--known to his friends as "Jake"--was in fair and stable condition in the pediatric intensive care unit at the hospital, where he'll have to stay for a week or two.

--compiled from articles in the Arkansas City Traveler, 3 May 1988 (submitted by The Sixth Grade Class, Caldwell Elementary School, Caldwell), and the Wichita Eagle-Beacon, 3 May 1988 (submitted by Jack Shumard, Wichita)



FIGHT WITH PYTHON

Nest of Them Aroused by a Milk Bath

Big One Sets Upon the Keeper, Who Separates Two Combatant Serpents, And Nearly Bit Off His Hand Before He Could Escape

Mr. Frank Kent, keeper of snakes at the chutes at San Francisco, Cal., thus describes an exciting adventure that befell him a short time ago: I entered my snakes' den, as is my custom every evening, not in the least expecting to be set upon by any of the reptiles. Although I have had much to do with snakes of various kinds, every time I enter and commence to handle the things I experience a creepy, repulsive feeling. That afternoon I had given the pythons a milk bath, which consists of placing them individually in a gallon of lukewarm milk and allowing them to remain there fifteen or twenty minutes. The reason for thus treating our pets is to keep their skins soft and pliable. Now, one effect of this bath is to arouse the pythons from their usual dormant state into a condition of activity. When I stepped inside the snake dwelling I was somewhat surprised to see two of the inmates having a furious fight. I did not mind their hissing nor the protruding of their forked tongues. I knew the larger one had started the mix-up, so I caught him by the middle of the body and with a jerk drew him out of the conflict. Enraged at this untimely interference, the python twisted his supple body, raised his head and, before I could realize my danger, had struck me and buried his teeth in my hand. In an instant he was ready to deal me another blow; to try again the effect of his sharp, bloody teeth. The movements of the monster were so rapid that I scarcely realized what had happened. Soon, however, the stinging pain and the spurting blood brought me to my senses. I did not become too frightened to act. Seeing that I had made a mistake in catching the snake in the first place, I made a desperate lunge at the writhing, hissing mass, getting my hand well around its small neck and holding it there. This noble python, whose forefathers the peoples of Africa doubtless worshiped, finding himself completely subdued, resigned himself to his fate with a few angry switchings of his body. This submission proved to be more apparent than real. Treachery was gleaming in the beady eyes. My wound demanded immediate attention. Powerless as it was to inject poison into my system the python had had painfully shown me that its four rows of teeth in its upper jaw, acting together with the two on the lower jaw, could inflict a hurt which made serious cause for alarm. It flashed across my mind that this same snake had bitten a man in New York. My fears grew. I began to look anxiously at the door, at the same time watching intently the movements of the other snakes, which I thought might try to help their companion. Seeing that my captive snake was quiet, I placed him again on the sandy floor. Driven on by fear I bounded towards the entrance and was soon tugging at the screen door to escape. No sooner did the python feel itself free from my grasp than it, with a speed unknown before, dragged itself after me. But I had gained the entrance

in good time, and the angered snake hit its head against the wire door.



Once outside the snake's dominion I stopped a moment to see it writhe about in a baffled rage. I feel fully able to take care of one snake, but what I should have done if the other five had decided to help their companion is more than I can say.

--The Severy Severyite, 1899 [Severy, Kansas]

Kansas Item of Interest

The Westmoreland Recorder says: Some time ago a little daughter of Mr. Strite was bitten on the foot by a copperhead snake. Mr. Strite took new milk and had her immerse her foot in it, changing the milk frequently for some time. The little girl experienced no pain or inconvenience and the next day she was as well as ever.

--Severy Severyite, 19 November 1897

(A special thanks to Park W. Carter of Eureka, Kansas for submitting the above two items from the Severyite, which he found while doing research at a local museum)

FEATURE ARTICLES

Observations on Box Turtles, Genus Terrapene, in Captivity

By
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In the backyard of our home we maintain a number of turtle pens, two of which consist of large tractor tires of the type commonly used for children's sand boxes. In these tires we keep a number of box turtles.

One tire contains four adult Eastern Box Turtles (Terrapene carolina carolina) and it is set in a shady area beneath a large elm tree, receiving direct sun for only one hour each day.

In the other tire a group of Ornate Box Turtles (Terrapene ornata ornata) and Three-toed Box Turtles (Terrapene carolina triunquis) are housed together. The sex ratio consists of 1:1 Three-toed Box Turtles and 2:4 Ornate Box Turtles. The bottom of each tire is filled with a mixture of sand and humus to a depth of about six inches. Since the second tire receives sunlight for about six hours per day, numerous hiding places in the form of logs and concave bark are provided. A large shallow water basin is provided in both enclosures and the inhabitants are fed on earthworms, grasshoppers, crickets, canned dog food and fruit throughout the summer.

During the winter months, after the box turtles have burrowed into the soil in their tires, a layer of dead leaves, straw and sand is added to a depth of about eight inches. Since the tire and the earth within it are above the surface of the surrounding yard, straw is piled around the outside edge of the tires, except for the south side, which receives direct sun during the winter months.

The turtles contained in these pens have thrived under these conditions for four years. The turtles burrow in for hibernation in mid-October and emerge during the first two weeks of April. This emergence corresponds with that of wild box turtles in southern Kansas.

As might be expected by anyone who has ever placed two box turtles of opposite sexes together for even a few moments, mating is a common occurrence in this little colony. Couplings occur most frequently immediately following their emergence from hibernation but may take place at any time during their active months.

The introduction of any new turtle to one of these enclosures will promptly rekindle the sex drives of the other inhabitants and a full-fledged turtle orgy usually follows.

The single female Three-toed Box Turtle is enormous at just over six inches in length and is sometimes the target of sexual overtures from the male Ornate Box Turtles. Though her size and

unwillingness generally foils their attempts, at least one successful mating between these two species has been observed.

Interestingly, one of the two male Ornate Box Turtles is decidedly dominant in the enclosure. He is a brightly colored individual with three legs, one of his front limbs being only a stub. Although no aggressive behavior between males has been noted, the three-legged male mates with the females much more frequently than his shy competitor.

We have never observed egg-laying in this colony, but in late September of 1985 we discovered a tiny Ornate Box Turtle in the enclosure, foraging about the legs of his huge relatives. We kept the juvenile in a tank indoors that winter and the following spring we discovered yet another baby Ornate Box Turtle which we presumed to be a litter mate in the same enclosure. Unfortunately, both of these youngsters perished due to dessication while housed outdoors.

In 1986 no juveniles were found in the pens, despite careful searches. Then, in late August 1987 we decided to carefully search for nests in the Ornate Box Turtle/Three-toed Box Turtle enclosure. We discovered a single nest which contained four eggs, three of which had been recently attacked by small ants. The eggs were buried about three inches deep and were white, leathery and elongate. I incubated the fourth egg in a jar with vermiculite and it hatched three days after its discovery! To my surprise, it was a Three-toed Box Turtle, one and one-fourth inches in length.

We housed this juvenile in a fish bowl with gravel and peat moss as a substrate at room temperature all winter. We kept a small amount of water in the bottom of the bowl, below the layer of gravel, at all times. The baby thrived in this humid environment, hiding beneath the wet moss. It began to feed in December, eating earthworms and crickets with great relish and by 10 April 1988 had grown to one and one-half inches in length.

We thought the single nest of Three-toed Box Turtles was all that were laid during the 1987 season. The adult turtles began emerging from hibernation earlier than usual (in March 1988) and most were surface active, feeding and breeding with gusto, by 5 April 1988.

On 12 April 1988 I began to remove the upper layer of straw, sand and leaves that insulates the reptiles during the colder months. To my surprise, I discovered a tiny baby Ornate Box Turtle approximately two inches beneath the surface. Further inspection revealed two more babies, all grouped together. They were quite lively and charged about without fear upon discovery. The turtles measured one and one-eighth inches in length. They were placed in a plastic shoe box with a layer of damp sand and dead leaves. Two of the juveniles eagerly devoured an earthworm two hours after their discovery!

Captive hatching allows observation of these interesting reptiles at a stage in their lives seldom recorded in the wild. Their tiny size and camouflage make the discovery of newly-hatched box turtles in the wild a rare event. From these observations, I would think it is safe to say that most box turtles hatch in late summer but do not emerge from their nest chamber until the following spring, as pointed out for Three-toed Box

Turtles by Collins (1982, page 112). Also, the young remain well hidden and favor moist areas since they appear very susceptible to drying and dessication.

Although commonly kept as pets, often under undesirable conditions, box turtles are seldom given the room and conditions necessary to reproduce. However, these requirements are quite simple and easy to provide.

Under conditions similar to those in nature, box turtles reproduce well in captivity and provide fascinating opportunities for study and observation.

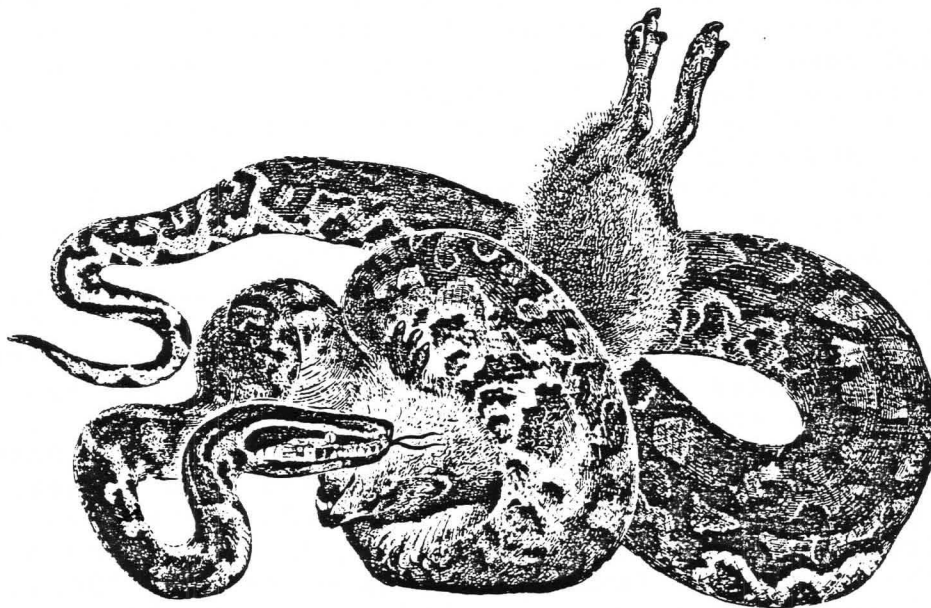
The longtime residents of our two turtle tires have grown very tame, running in a comical stampede when food is offered and begging pathetically when being observed. A careless bare foot placed in their home is open to attack. Distinct personalities have emerged--some are quite shy, even after four years of scrutiny, while others are obnoxious and seem almost intelligent. I like to think that they know me, as I know them, but...

They seem to endure the company of several Plains Narrow-mouth Toads (Gastrophryne olivacea) that have set up house-keeping inside the tires. Where they came from God only knows, but the turtles do not bother them. Even when unearthed while the box turtles dig for worms, the toads take no notice.

I hope to keep this colony for the long run, not only for the just and noble cause of scientific observation, but also because I plainly like their company. Perhaps someday I will hand the hatchlings we have produced down to some future herpetologist, who will keep them and consider them and ultimately find out how long these wonderful creatures can really live.

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Appropriate First Aid Measurers for Venomous Snake Bite Should Not Come as a Shock

By

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In July 1986 the prestigious medical journal, The Lancet, published a short letter entitled "High voltage shock treatment for snake bite" (Guderian, MacKenzie and Williams, 1986). Through the extensive media publicity given this letter, many readers were electrified at the prospect of such a simple method of modifying the effects of venomous snakebite. Although a year and a half have passed, there is still no clear indication that electric shock should be used following snakebite, and here is why.

Dr. Ronald Guderian, a missionary physician working in the western lowland forests of Ecuador, reported treatment of 34 native Ecuadorians having skin punctures said to have resulted from snakebite. The snakes involved were apparently not identified. Treatment was given in 30 minutes or less following the bite. Five one-second shocks of high voltage (20 kV) and low amperage (<1 mA) were applied to the bite site by using an insulated probe connected to the spark plug of a running outboard motor. Local venom effects at the bite site did not appear and there were no fatalities. In seven patients who refused shock treatment, there were local venom effects and two required amputation. Dr. Guderian modified a "stun gun" (40 kV - 1 mA) to reduce its power to 25 kV - <1 mA so as to have a more available treatment device. The authors also proposed electroshock for scorpion, bee, wasp and Paraponera ant stings.

Shortly after its appearance in The Lancet journal, the new treatment was publicized in the New York Times (Altman, 1986), Time magazine, the American Medical News (Anon, 1986) and a Dallas newspaper. All authors seemed to accept the report as fact and that the victims treated had been cured of inevitable morbidity and possible mortality. When interviewed, the authors apparently did not dispell this impression.

After a quiet winter, electroshock for snakebite again was recharged in Outdoor Life magazine (Herzberg, 1987) in a sensational article which had no new information (but did say that alternating current should not be used - a good point) and in Hippocrates magazine (Anon, 1987a) a proprietary type medical publication. Then, without comment, the medical journal, Postgraduate Medicine (Anon, 1987b), proposed the treatment. This was criticized by Allen Ryan, M.D. (Ryan, 1987) who pointed out that many of the bites could have been by non-venomous snakes and that most venomous snakebites do well with any type of treatment (as long as the treatment does not harm). Sherman Minton (Minton, 1987) had earlier pointed this out and also suggested the native people involved may have had antibody protection due to previous bites. Antibodies have been shown to be present in the Waorani tribe in eastern Ecuador (Theakston et al., 1981). Findlay Russell concurred (Russell, 1987). In one large series in

Costa Rica, where Bothrops asper (fer-de-lance) was the main offending snake, 70% of victims fared well with usual (antivenom and i.v. fluids) or no treatment at all (Cerdas, Cornavaca and Lopez, 1986).

I interviewed Dr. Jeffery Williams of Michigan State University by phone in August, 1987. During the preceeding year, Williams had been conducting electroshock experiments on dogs injected with Bothrops atrox venom from Ecuador. To that date he had been unsuccessful in preventing venom effects. Dogs were not protected from shock (hypotension) and the electrical current produced significant local skin damage. These results were preliminary and not conclusive, and his project to determine whether electroshock will modify venom effects is continuing.

The following statement by Dr. Williams was quoted in Postgraduate Medicine: "Until the evidence can be approached scientifically and with other types of snakes, it would be rash to depend on electroshock therapy [for snake bite]," (Griffin, 1987) (underline is mine).

Dr. Guderian continues to use electroshock therapy and gather case histories in Ecuador. He is said to have promoted its use on television in Seattle last summer (F. Slavens - pers. comm., Aug., 1987).

It seems to me the above events may be instructive. Results such as those of Guderian, MacKenzie and Williams should have been written up in detail as a formal paper and submitted to a refereed medical journal where the merits of the study could have been more fully judged (this Newsletter is an example of a non-refereed publication). Editors may not be critical of letters to their journals, especially if they seem interesting and the subject is outside their range of expertise. The authors themselves did little in their letter or in earlier interviews to point out possible weaknesses in their study nor to show conservatism in promotion of the technique for general and immediate use by the public.

The science reporters and the medical editor of Postgraduate Medicine served their readers poorly by being one-sided in the thrust of their articles in promoting this new technique. The point should again be made that a venomous snakebite may have an extremely variable clinical course due to multiple factors, and definite conclusions from human studies are very difficult to make. It may be some time until we know if Dr. Guderian fell into this trap or has made a major breakthrough. As to laboratory research, electroshock has been shown not to reduce mortality in experimentally envenomated mice in one report (Johnson, Kardong and MacKessy, 1987). Similar negative results have been obtained at the Instituto Butantan, São Paulo (J.L. Cardoso, pers. comm., 1987) and Instituto Clodomiro Picado, San José, Costa Rica (D. Clark, pers. comm., 1988). I would echo the admonitions of Drs. Minton, Russell and Ryan - don't use a stun gun until better evidence is in.

If the reader is bitten by a rattlesnake this summer, used electroshock from a stun gun as a first aid measure and recovered uneventfully, it would only prove the stun gun did no harm in that single instance. Recovery may have been the same without it.

Current recommendations for first aid in case of venomous snake bite are as follows (also see Lowe, Schwalbe and Johnson, 1986):

1. Proceed to nearest medical facility without delay.
2. Reduce physical activity as much as is practical.
3. Remain calm.
4. Splint extremity to reduce its movements.
5. Do not use incision and suction, constricting bands or tourniquets, or ice applications.

The Sawyer "Extractor" syringe suction, without the use of incisions, may remove small amounts of venom if employed within three to five minutes after the bite (Bronstein, et al., 1985; Bronstein, Russell and Sullivan, 1986); but that's another story.

Remember, number 1 above is most important. Those who stay at home after being bitten by their captive rattlesnake, to see how severe the bite will become, are taking a risk they may not appreciate. In Arizona in the past 15 years, two males have died at home doing just that.

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(From the Tucson Herpetological Society Newsletter volume 1, number 2, March 1988)

EDITOR'S NOTE:

Unfortunately, the idea that electroshock will "cure" snakebite has already become very widespread before it can be fairly tested. An example is an ad received by the KHS from a company in Tulsa, Oklahoma, which proclaims they are "proud to share with you the exciting new 'SNAKE DOCTOR, JR.'" It goes on to say, untruthfully, that "it is currently being used by doctors, hospitals and clinics with amazing results... It produces a charge of 25 KV DC at less than 1 MA. This high voltage, low amp. charge creates an accelerated electrophoresis action. Where by the actual make-up of the venom itself is rearranged to a non-lethal substance." They recommend it for insect stings and chiggers as well as snake bite. All for only \$39.95. Their advertising also cites the letter to Lancet and the New York Times article mentioned above.

And of course, they note that "To use as a personal protector against human or animal, touch violator with both electrodes and press switch ON."

It would be great if, in fact, high voltage can be used to successfully treat snake bite. But until proper studies on the technique are completed, beware.

BOOK REVIEWS

The Windward Road: Adventures of a Naturalist on Remote Caribbean Shores, by Archie Carr. 1956. Alfred A. Knopf, New York. 258 pages. PRICE OF REPRINT: \$10.00 REPRINT AVAILABLE FROM: Caribbean Conservation Corporation, P.O. Box 3048, Tallahassee, Florida 32315.

Too often, books about the tropics by modern biologists are sterile, narrow views of a particular field of interest. Frogs and nothing but frogs, for instance, or all about the gonads of anoles. And while that sort of thing is fine for those interested in the particular subject, they leave a section of the public bored and befuddled by a jumble of ten-dollar words and

confusing theories.

It is refreshing, then, for almost anyone--research scientist or armchair naturalist--to sit down and read a good book about faraway places, high adventures and fascinating creatures in an exciting, interesting and easily digestible format. Raymond Ditmars was one author of such books, Carl Kauffeld was another. But by and large, books that deal with herps in a lively manner, attractive to anyone from layman to biologist, are lamentably few and far between.

One classic book of the lively and attractive genre came to my attention recently as I was reading in preparation for an upcoming trip to Costa Rica. It is The Windward Road by the late Dr. Archie Carr. Originally published in 1956, this book might be said to be responsible for the entire movement to conserve and protect sea turtles. It is also a sort of anthem for the Caribbean. It spurred the formation of the Caribbean Conservation Corporation (CCC) which eventually led to the protection of Tortuguero Beach in Costa Rica and all of the resulting research carried out there in the past twenty-odd years.

But I don't mean to get carried away with all that here. What I do mean to say is this: it's the kind of book you read with caution because if you're not careful, you will suddenly find yourself booked on a flight south, stalking some lonely tropical shoreline on an obscure, sacred quest. Or maybe sipping one too many cervezas in some oceanside "jook," waiting for a broken-down plane to the next port-of-call, and watching the sloths in the city park for any hint of sexual innuendo.

The original edition is a hard volume to find, though, and I spent quite a bit of time trying to locate a copy. Then I discovered that the book has been reissued by the Caribbean Conservation Corporation! David Carr tells me that although it was reissued in 1979, it has not been widely promoted yet.

I'll tell you this, if there was ever a book that will inspire you to take off for the jungle, this is it. As Joshua B. Powers says in the Forward, "It is not often that a book entertains, instructs and drives people to action. This one did, however, and does, and it leaves one with a spiritual urge and grace."

The CCC now offers this fine book for a \$10.00 tax deductible contribution to their organization. So, while you are getting a classic, stirring bit of reading, you can take heart in knowing that you're supporting the sea turtle research and conservation effort. It is also a must--required reading if you will--for all southward bound gringos! Carr writes with humor and sensitivity not only for the turtles but for the people, food, customs and environments of the Caribbean region. Few other naturalists have so captured the essence of Caribbean life.

Make you check payable to: The Windward Road, Caribbean Conservation Corporation, P.O. Box 3048, Tallahassee, Florida 32315.

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