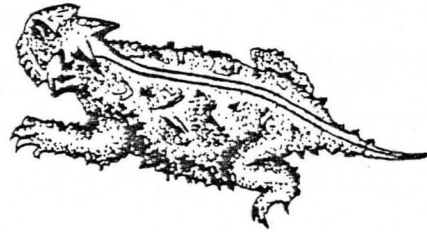


KANSAS
HERPETOLOGICAL
SOCIETY



NEWSLETTER

NUMBER 34

DECEMBER 1979

NEXT KHS MEETING TO BE HELD IN EMPORIA

The next meeting of the Kansas Herpetological Society will be held on Saturday, January 19, at 1:00 PM in Room 72, Biology Building, Emporia State University. There will be an informal gathering with coffee and doughnuts being served. Although the schedule for the day's events is not completed at this time, some of the speakers will include Peter Gray, formerly of the Sedgwick County Zoo and Kelly Irwin. Kelly will tell us of his adventures in Samoa. Jeanie Hauser, who works as an Animal Technician at KU will give a slide presentation of the diseases of reptiles and amphibians. I'm sure there will be many good speakers, so plan to attend. We will conclude the day by showing your ten best slides of reptiles and amphibians. Bring your favorite slides and bring a friend.



1979 Annual Meeting at Topeka Zoo, 17 November 1979

THE 1979 KHS ANNUAL MEETING AT TOPEKA ZOO A GREAT SUCCESS!

Kelly Irwin, President of KHS, called the meeting to order. Thanks were extended to Mike Coker of the Topeka Zoo for providing coffee and doughnuts.

The first speaker of the day was Dr. Robert F. Clarke of Emporia State University who gave us his impressions of the beautiful island of San Salvador, one of the eastern islands of the Bahamas. The small island (5 mi. wide, 12 mi. long) is located 385 mi. southeast of Miami, and contains numerous saline lakes in the interior region. These lakes have a salt concentration which is higher than that of the ocean water which surrounds the island. There is one road (Queen's Highway) which makes a complete circuit of San Salvador. We saw slides of the island, of its vegetation, and of diverse forms of animal life that inhabit this region. Most of the vegetation consists of small shrubs about three to six feet in height. Large prickly pear cactus plants (*Opuntia* sp.) are found scattered among the shrubs, making it impossible to walk through certain sections. Besides this native vegetation, a number of fruit trees have been introduced, including lime trees, almond trees, bananas and papayas. Oleanders, air plants (including a species of orchid), and the beautiful hibiscus, also grow on the island, along with two types of mangroves (black and red). As we might expect, mosquito's were a problem. This was partially alleviated in Dr. Clarke's group by the liberal application of mosquito repellent. The natives of the island, on the other hand, have glass shutters which are closed in the evening to help prevent mosquitos from entering their houses. Then a smoky fire is lit inside the house to further discourage their tiny visitors. Wild cattle also roam the island. The native inhabitants of San Salvador are poor, but seem to lead happy lives. Unfortunately, the "slash and burn" type of agriculture, which is practiced here and in many other parts of the tropics, is quickly destroying the native vegetation. This method consists of going into an unfarmed area and clearing out as much vegetation as possible. Then the remaining tree stumps are burned. Crops can only be planted here for about two or three years before the soil is depleted. When this happens, another virgin region is cleared. This results in drastic changes in habitat (such as deforestation) in a very few number of years.

Among the many other attractions, San Salvador is a major historical landmark. It is the place where Columbus first set foot in the New World. The following is an account of Columbus' first landing in the New World given by Washington Irving:

"It was on Friday morning, the 12th of October, that Columbus first beheld the New World. As the day dawned he saw before him a level island, several leagues in extent, and covered with trees like a continual orchard. Though apparently uncultivated, it was populous, for the inhabitants were seen issuing from all parts of the woods and running to the shore. ... As he approached the shore, Columbus, who was disposed for all kinds of agreeable impressions, was delighted with the purity and suavity of the atmosphere, the crystal transparency of the sea and the extraordinary beauty of the vegetation. He beheld, also, fruits of an unknown kind upon the trees which overhung the shores. On landing he threw himself on his knees, kissed the earth, and returned thanks to God with tears of joy. His example was followed by the rest, whose hearts indeed overflowed with the same feelings of gratitude.

Columbus then rising drew his sword, displayed the royal standard, and assembling round him the two captains, with Rodrigo de Escobedo, notary of the armament, Rodrigo Sanchez, and the rest who had landed, he took solemn possession in the name of the Castilian sovereigns, giving the island the name of San Salvador."

Like Columbus, Dr. Clarke was also impressed with the clarity of the water. The visibility extended beyond 150 feet! His group spent a lot of time exploring the numerous coral reefs, which led to the discovery of a small octopus that was taken back to the lab. Unfortunately, it was killed during the night by a predatory mouse.

Herpetologically speaking, there are a total of two species of frogs, five species of lizards, and only one species of snake occurring on the island. The snake, a small blind snake of the genus Leptotyphlops, was first discovered on San Salvador in 1907. Although Dr. Clarke's group did not find any blind snakes, a few were recently observed here in the last decade. The two frogs (Eleutherodactylus sp. and Osteopilus septentrionalis) were quite common. Some of the interesting lizards that were seen include a gecko (Sphaerodactylus sp.) and the anole, Anolis segrei. In addition to the slides, Dr. Clarke was able to bring a film which he took of the wildlife of San Salvador. One remarkable sequence showed the threat display of the largest lizard (3 to 4 feet) on the island, the endemic rock iguana (Cyclura sp.). Dr. Clarke fortunately was able to obtain permission from the Bahamian government to bring a rock iguana back to Kansas for observation. In many lizards threat display is highly ritualized behavior which is an evolutionary substitute for direct combat. In this way, territories can be maintained as well as a rather high population density, without deaths due to intraspecific combat. Dr. Clarke's iguana, however, proved to be a lacertilian Don Quixote. Instead of attacking windmills, it would rush headlong into a mirror after a few small head-bobbing motion performed for the benefit of its mirror image.

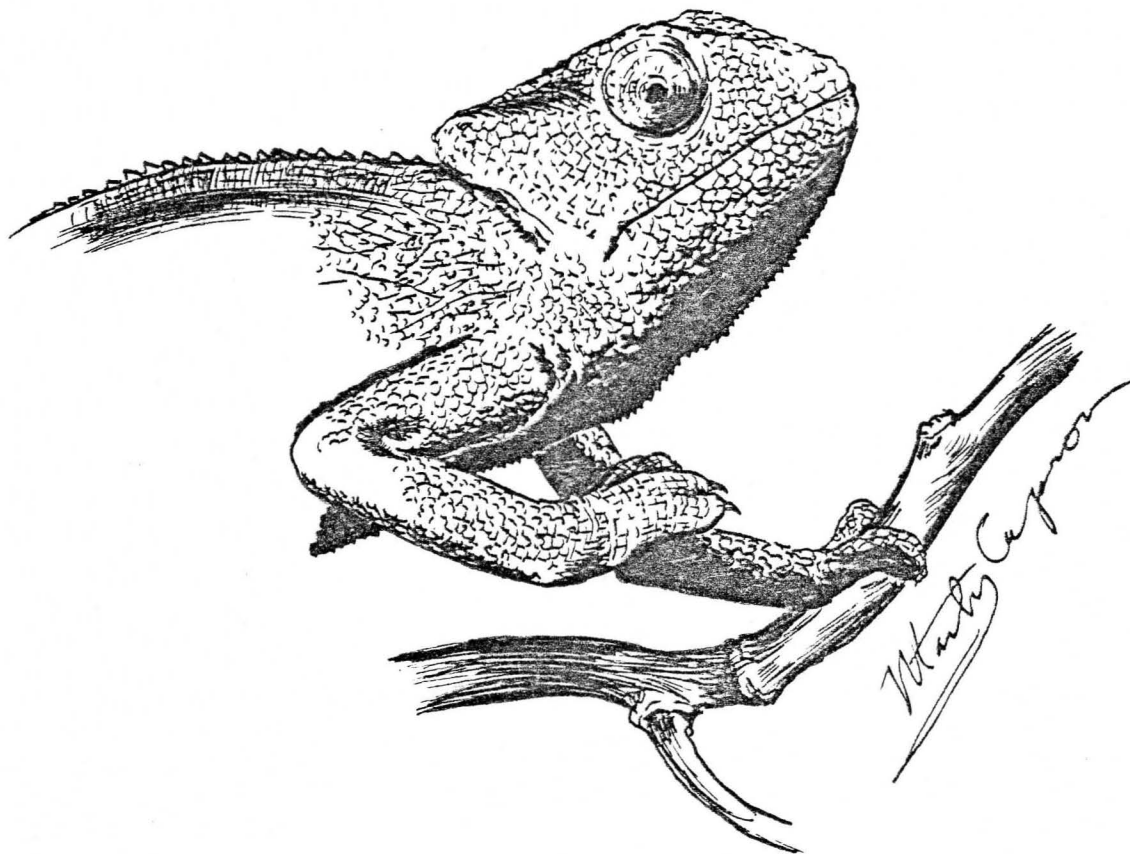
We also had the opportunity of seeing some of the nineteen land birds that live on the island. Many nighthawks were found on the ground in nests containing only one egg. They were generally unafraid of people, and could be readily approached. One particularly striking animal is the Bahama Woodstar, which is the only hummingbird on San Salvador. Another impressive bird, the white-tailed tropic bird, particularly attracted our attention. Its long, white tail made identification easy.

A scene of the Bahamian sunset ended what was a thoroughly enjoyable presentation.

Irving, W.

1828. The Life and Voyages of Christopher Columbus. Hurst & Co., Pub., (N.Y., p. 109-110.)

(Quotation was taken from the above cited publication)



DEVENOMATION IN SNAKES - Mike Coker, Topeka Zoo

Next, Mike Coker gave a presentation of the recent "devenomation" of the Topeka Zoo's Asiatic cobra (Naja naja). Leland Nuehring, the zoo veterinarian, performed an operation on the snake that is essentially the same as a vasectomy. In this case, however, the venom ducts were severed and the ends were cauterized. The entire procedure took about thirty-five to forty minutes to complete. Ketamine, an anesthetic originally developed for use in cats, was used to sedate the cobra. Recovery is usually complete by the end of the second week after surgery, and, the snake may resume normal feeding within three or four weeks. However, the first operation resulted in swelling due to venom flowing from the severed ducts into the surrounding tissues. Therefore a second operation was performed to cauterize the ends of the open ducts to prevent this venom flow. The veterinarian followed the procedure published by Glenn, Straight, and Snyder in Toxicon.

Glenn, J. L., R. Straight and C. C. Snyder.

1973. "Surgical Technique for Isolation of the Main Venom Gland of Viperid, Crotalid and Elapid Snakes." Toxicon 11: 231-233.

SNAKEBITE - John Atherton, Wichita

John Atherton, a paramedic and amateur herpetologist, presented us with a wealth of information concerning the parameters of snakebite, and, gave an evaluation of most of the methods used in its treatment. Did you know that two-thirds of all poisonous snake bites that occur in the United States are "illegitimate," i.e. they occur while intentionally handling snakes? Due to the relative ease of obtaining exotic snakes through the mail, both the medical and paramedical professions should know something about the symptoms and treatment of a wide variety of snakebite, including those due to cobras, kraits, and, vipers. Before we can begin treatment, we must know what type of snake was involved; and, we must make some judgements concerning the severity of the bite. Generally, the venoms of poisonous snakes may be divided into two categories based on their main effects: hemotoxic and neurotoxic. Hemotoxic venom produces severe local reactions, while the neurotoxic type involves the entire body since it affects the nervous system. The pit-vipers (Crotalidae), which include the copperhead (Agkistrodon contortrix) cottonmouth (A. piscivorus), and the rattlesnakes (Crotalus sp. and Sistrurus sp.), possess hemotoxic venom which essentially digests tissue. However, a number of rattlesnakes also possess strong neurotoxic agents; notably, the Mohave rattler (Crotalus scutulatus), the South American or tropical rattler (C. durissus), and the Eastern Diamondback rattler (C. adamanteus). Those snakes having a predominantly neurotoxic venom belong to the family Elapidae or to the family Hydrophidae. Some more common representatives of the former family include the cobras (Naja sp.), the King cobra (Ophiophagus hannah), the Kraits (Bungarus sp.), and, our native Coral snakes (Micrurus sp. and Micruroides sp.). The sea snakes belong to the Hydrophidae. The snakes belonging to these two families are the most venomous in the world, thereby making them also some of the most dangerous. John compared the symptoms of neurotoxic envenomation to those due to insecticide poisoning. There is a decrease in both heart rate and blood pressure, and, a concomitant stimulation of the central nervous system. Periods of motionless alternate with periods of violent movements, which eventually lead to convulsions. Death is either caused by shock or by the cessation of breathing. The latter event is caused by the venom's interference with the nervous regulation of the breathing reflex. Therefore, some victims can be saved by artificial respiration, and by them being placed in an iron lung for several days. Besides the two general categories of venom action (neurotoxic and hemotoxic), some Old World vipers and pit-vipers (Trimeresurus sp.) possess a venom component which interferes with the clotting mechanism of the blood.

Before we can begin any treatment we must have an estimate of the severity of the bite. There are five important factors to be considered: the "P, Q, R, S, T characteristics." First we must consider the Patient's characteristics, such as age, weight, and general health. A large person can withstand more venom because it is diluted by his large body mass. Therefore, a venomous snake bite that would produce minor effects in an adult, could be very serious for a child or infant receiving the same bite. The general health of the individual is also an important factor, simply because a healthy individual has a higher tolerance to stress. A low stress tolerance means that there is a

greater chance that the victim will go into shock following a snake bite. Secondly, we must estimate the Quantity of venom that was injected. This is done by noting how rapidly certain symptoms appear following the bite. To give the reader an idea of how this may be done, as well as to provide some idea of the course of events following the bite of a common indigenous pit-viper, I will quote from an account given by Dr. Henry S. Fitch of a Copperhead bite he received some years ago:

"A copperhead bite that I received in 1957 was perhaps fairly typical and unusual opportunity to observe the effect of the venom was afforded because treatment was kept to a minimum, emotional shock occasioned by a horror of snakes was not involved, and symptoms were set down in writing as they occurred."

The bite was received at 8:15 p.m. on June 5.it [the snake] was held down too far back behind the head and an instant later....it struck the middle finger of my right hand.I concentrated on the treatment of the bite, sucking hard and drawing small amounts of blood from the fang punctures. Spasmodic twitching of muscles at the site of the bite was soon noticeable. From the start there was a dull ache at the site of the bite. Over several hours it became progressively more severe."

"By 8:25 p.m. the site of the bite had become noticeably swollen and discolored. As a result of the swelling blood could no longer be sucked from the wound, and throbbing pain had become severe. At 8:30 p.m. to promote bleeding, three punctures were made with a 26-gauge hypodermic needleSwelling was steadily progressing proximally. Site of the most severe pain had shifted from the lower fang puncture to an area about one inch in diameter in the palm adjacent to the base of the middle finger. The throbbing was accompanied by a sensation of numbness in the overlying skin. With a sterile razor blade a longitudinal incision half an inch in length was made through the fang puncture to a depth of approximately 1/8 inch. For several minutes thereafter blood flowed freely from the wound, but gradually it again became more meager as swelling increased, and soon little could be obtained by sucking. No further incisions were made. At 10:00 p.m. pulse was 58 (normal) and temperature was 99.0°. Swelling had progressed to a level about 2 inches above the wrist, with slight accompanying discoloration. By 10:15 p.m. swelling had progressed to a level about four inches above the wrist. The throbbing pain in the palm was still severe and extended back along the lower side of the arm to the elbow....At 10:30 p.m. respiratory congestion had become noticeable. An antihistamine (Chlorotrymatron) was taken to counteract these symptoms; pulse 50. At 10:45 p.m. pain had reached its maximum, and was intense in the palm near the base of the middle finger, extending back as far as the elbow.At 11:15 p.m. a feeling of nausea became prominent. At 11:30 vomiting occurred; pulse 55. At 12:45 a.m. no new symptoms had appeared...On the following morning systematic symptoms had largely disappeared. The bitten hand had swollen to nearly twice normal size and swelling extended slightly above the elbow. Swelling and soreness in the afflicted hand and elbow subsided slowly, and it was nearly a month before normal use of the hand was regained."

A few years ago, I was bitten in the thumb by a very small copperhead. After immediately sucking on the wound and placing it under cold, running tap water, I observed the time of onset of symptoms, comparing mine with those given by Dr. Fitch. It was a full 35 minutes before swelling and discoloration of the bitten region occurred. Therefore, I knew that the bite was only minor. The symptoms didn't extend beyond the immediate area of the bite, and, within three hours they were gone completely.

The third characteristic of the "P,Q,R,S,T characteristics" is Route of entry. Venom is injected by the snake's fangs, usually within a mass of muscle tissue. If, however, the venom happens to be injected into a vein or artery, the consequences would be much more serious; because, the venom would be taken to important internal organs such as the heart, lungs, and kidneys. In this case, there would be a much greater chance of shock. Local reactions may be very slight, but there would be drastic changes in the heart rate, respiration rate, and blood pressure.

Next, we must consider the Substance that was injected, i.e. how toxic is the venom. A copperhead's venom is relatively low in toxicity, while that of the Mojave rattler, the eastern diamondback rattler, and the South American rattler is relatively high. Of even greater toxicity is the venom of the coral snakes. Of course, we must remember that the amount of venom injected is also very important in determining which bite is more dangerous. Although large snakes are potentially more dangerous than small snakes of the same species because they possess a larger venom supply, the amount of venom injected in any single bite is extremely variable. About half of all poisonous snake bites are "dry," i.e. no venom is injected.

Lastly, we should note the time at which the bite occurred. This will enable paramedical and medical personnel to make a better estimate of the degree of severity of the bite. Although this is a subjective judgement, five grades of severity, based on the symptoms and their time of onset, are currently recognized: 0) no reaction 1) minor local reaction 2) severe local reaction 3) shock appears one hour after envenomation 4) severe shock appears 15 minutes following the bite. The following is a definition of shock given by The American National Red Cross: "Shock is a condition resulting from a depressed state of many vital body functions, a depression that could threaten life even though the victim's injuries would not otherwise be fatal." Some signs of shock include: dilated pupils, rapid pulse, rapid respiration, low blood pressure, pale and clammy skin.

In discussing the treatment of snakebite, John Atherton invoked the "Risk-Benefit" rationale. Every procedure we can use to help the victim has a certain risk as well as a certain benefit associated with it. Therefore, by comparing the risks and benefits, we can be in a better position to choose our treatment methods. First, we should take the patient to the hospital as soon as possible, while keeping him calm and quite. Under no circumstances should he be allowed to walk. Do not administer anything by mouth. This includes fluids and any medications. (This is to prevent him from choking if vomiting should occur while in the state of shock.) Regarding the application of suction over the fang marks, John recommended that this be done only

if the hospital is more than 35 miles away, and, if you can do it within the first fifteen minutes after the bite. This method involves making a small longitudinal cut over each fang mark, and therefore, carries the risk of cutting a nerve or a blood vessel. If it can be done within the first three minutes, however, about 50% of the venom may be removed. The use of a constricting band or a tourniquet is generally not recommended since the risk is high and the benefit is low. The purpose of using a constricting band (impedes the return flow of venous blood to the heart, while not stopping arterial blood flow to the limb) is to slow down the progression of the venom to the heart. It must not be used in cases where the venom contains factors that prevent the normal clotting of the blood, since this could result in the victim bleeding to death. A tourniquet (restricts both venous and arterial blood flow) must not be used unless one plans on losing that part of the limb below the tourniquet. Without blood flow the tissue in the limb will die. Therefore, although the use of a constricting band does temporarily slow down the venom progression, it must be periodically loosened to prevent tissue destruction. This enables the venom to continue its movement. The use of cryotherapy (application of cool packs) also carries with it many risks and dubious benefits. Although it temporarily slows down the action of the venom, it is not inactivated. Here again we must worry about tissue destruction due to the treatment; therefore, ice packs should never be used. The use of cool packs also prevents antivenin from going to the bitten region, and may actually drive the venom deeper into the tissues. Many incidences of tissue loss in snakebite cases can be traced to the use of cryotherapy. John Atherton also views antivenin as a mixed blessing. It should only be used in severe cases (grades 3 and 4); and then, it should be given in large doses, only intravenously. Antivenin is made from horse serum, which, unfortunately, happens to produce extreme allergic reactions in many people. There is a skin test that can be performed to determine if a person is allergic; but, since this test can make someone allergic to horse serum in the future, it must not be performed unless the doctor intends to administer the antivenin. Leaving first aid measures for the moment, John dealt with the efficacy of excision in the medical treatment of snakebite. Since most of the venom tends to stay in the general area of the bite for about three hours, it can be removed by cutting out the tissue in that area. If done properly (without the cutting of nerves or blood vessels), partial or complete recovery of function can be obtained in relatively severe cases.

The audience was cautioned to treat a venomous snake like a "loaded gun." Pictorial accounts of snakebite were found in several books that John brought to the meeting. Two of the more important references on this subject are: Dr. Thomas G. Glass's, Management of Poisonous Snakebite (8711 Village Dr., Suite 112, San Antonio, TX 78217), and, Sherman Minton's Venomous Reptiles, which was published in 1969. On the whole, it was a very good presentation filled with much useful information on a subject of vital importance. I know that many members of the audience benefited immensely from the discussion.

References: Fitch, H. S. 1960. "Autecology of the Copperhead". Univ. Ks. Publ. Mus. Nat. Hist. 13(4): 263-265.

The American National Red Cross. 1977. Standard First Aid & Personal Safety. Doubleday & Co., Inc. p. 60.

THE HONDURAS EXPERIENCE - Kelly Irwin, Museum of Natural History, Lawrence.

After lunch, Kelly Irwin told us of some of his adventures during a recent trip to the Honduran Island of Roatan. He and Jim Knight, a KU graduate student in Herpetology, had the good fortune of spending some time on this tropical island last summer. Kelly showed us slides of the beautiful flora and fauna. They managed to observe eighteen of the twenty-seven species of reptiles and amphibians that are known to occur on Roatan, including an endemic coral snake, Micrurus ruatanus. Interestingly, the natives on the island knew of this snake but considered it harmless, because of their belief that a venomous snake obtains its venom from the large poison glands (parotid) located on the back of toads (Bufo sp.). Since toads do not occur on Roatan they believe that none of the snakes can be venomous. At night, Kelly managed to collect a number of specimens belonging to a species of rear-fanged colubrid, Coniophanes bipunctatus, from a pool in which tree frogs (Smilisca baudini) were breeding. A nearby stream contained a large number of mild-mannered water snakes (Tretanorhinus nigroluteus) which appear to feed almost exclusively upon fish. This is one of the most aquatic water snakes in its habits - having dorsally located nostrils, which enable it to remain almost completely submerged. Other species of interest observed include the very common "water dragon" (Basiliscus vittatus), two species of vine snake (Oxybelis aeneus, O. fulgidus), and an endemic gecko (Sphaerodactylus rosaurae).

Aside from the herpetological observations, Kelly was most impressed by the marginal level of sanitation on the island. He and Jim stayed at a small hotel called the "Bamboo Inn" which was located near the ocean. Being near the water, all refuse flowed from the inn directly into the bay.

Judging from Kelly's presentation, Roatan seems to be an ideal place to spend a quiet several weeks enjoying the sun, water, and herpetological wonders of the tropics.

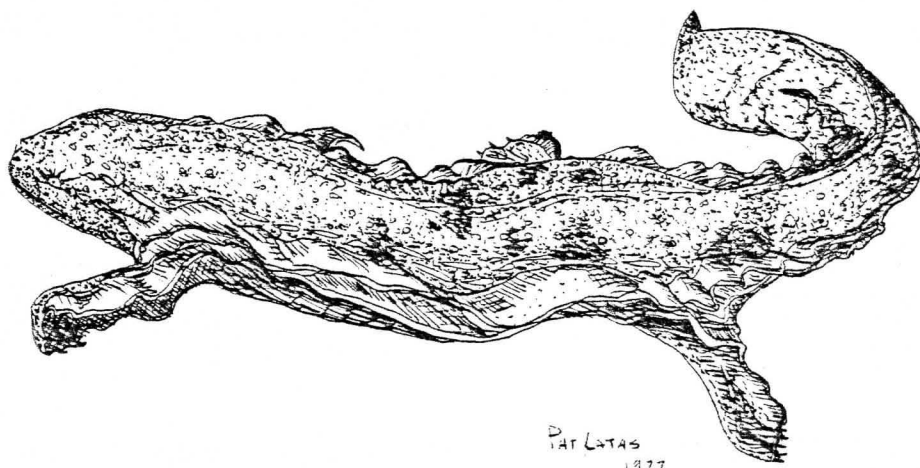
KANSAS HERPETOLOGY DURING 1979 - Joseph T. Collins, Museum of Natural History

Next, Joseph Collins summarized the progress of our knowledge of the distribution of reptiles and amphibians throughout the state during the last calendar year. The western green toad (Bufo debilis) was rediscovered in Kansas after a period of 40 years by Stan Roth, who found a specimen in Wallace County. The plains leopard frog, formerly known as Rana pipiens, has been divided into two new species, R. blairi and R. utricularia. Strecker's chorus frog (Pseudacris streckeri) is also a new addition to the state herpetofauna. Two species found in Collins' publication, Amphibians and Reptiles in Kansas, will no longer be considered as occurring in the state until breeding populations are discovered. These are the western cottonmouth (Agkistrodon piscivorus leucostoma) and the western smooth green snake (Opheodrys vernalis blanchardi). Aside from the new state records, there were fifty-five new county records during 1979. These, in addition to the county records that have been added during the last several years, have drastically updated our knowledge of the distribution of the state's herpetofauna. Since 1974 many members of the Kansas Herpetological Society have made valuable contributions in this area. This increase in knowledge

also increases the need for a second edition of Amphibians and Reptiles in Kansas to be published in the near future. Besides noting our progress, Collins mentioned several areas of the state that have not been thoroughly explored. These include the Dodge City area in Ford Co., Willow Creek in Wallace Co., the counties to the north that border Nebraska, and Doniphan Co. in the northeast. A search of Doniphan Co. may reveal the presence of the western fox snake (Elaphe v. vulpina), which occurs just across the river in the state of Missouri. To beat the heat, Collins suggested that we make the July meeting an aquatic field trip to Spring River and Shoal Creek in Cherokee County. Only two specimens of the hellbender (Cryptobranchus alleganiensis alleganiensis) have been collected in Kansas and one of them was found in Spring River. In addition, we may have the opportunity of observing the waterdog (Necturus maculosus) in its native habitat.

All in all, it has been a good year. I'm looking forward to KHS field trips in 1980.

---HANK GUARISCO, University of Kansas



KHS ANNUAL AUCTION

The annual meeting of the Kansas Herpetological Society was brought to a close with the auctioning of many herpetologically oriented items that were donated by members. Our auctioneer, Joseph T. Collins, pointed out the distinguishing characteristics of a wide variety of items to the audience. Included in this array were two wooden snake cages which went for \$11.00 and \$14.00, respectively. Other items included:

a snake book - \$6.00

Bob Clark's color drawings of the venomous snakes of Kansas - \$6.60 & \$8.00

E.H. Taylor's "The Lizards of Thailand" - \$3.00

original prints from the 1850's that appear in a book relating U.S.

explorations to establish the best railroad route: tiger salamander - \$4.50

pond turtle - \$3.75
rattlesnake - \$16.00
a first edition (1906) of Mary Dickerson's Frog Book - \$17.00
assorted sets of reprints (total) - \$18.30
assorted sets of color slides - \$12.95
a wall hanging - \$4.00
color plates that appear in Holbrook's American Herpetology (total) \$24.60

By the end of the afternoon, the KHS treasury was \$181.45 richer.

* * * * *

1979 TREASURER'S REPORT

Al Kamb estimated our current membership to be in the neighborhood of 175.

1978 Balance -	\$656.38	
1979 Dues -	373.05	
1979 Auction -	<u>181.45</u>	
		1979 Expenses - <u>\$813.84</u>
year's assets	\$1210.88	
1979 Balance	<u>\$ 397.04</u>	

* * * * *

CURRENT LITERATURE

This current literature section has been compiled by J. T. Collins, and contains titles of books and articles on amphibians and reptiles of possible interest to KHS members. Generally, titles listed here are those written by KHS members, those which contain direct reference to Kansas herpetofauna, or those of significance regarding North American amphibians and reptiles.

Aldridge, R. D.

1979. Female reproductive cycles of the snakes Arizona elegans and Crotalus viridis. Herpetologica, 35(3): 256-261.

Anderson, K. A. and T. L. Beiting

1979. Body heating and cooling in the mudpuppy, Necturus maculosus. Herpetologica, 35(3): 234-239.

Brackin, M. F.

1979. The seasonal reproductive, fat body, and adrenal cycles of male six-lined racerunners (Cnemidophorus sexlineatus) in central Oklahoma. Herpetologica, 35(3): 216-222.

Duellman, W. E.

1979. The numbers of amphibians and reptiles. Herp. Review, 10(3): 83-84.

Irwin, K. J.

1979. Two aberrant crotalid snakes from Kansas. *Herp. Review*, 10(3): 85.

Murphy, J. B., L. A. Mitchell and J. A. Campbell

1979. Miscellaneous notes on the reproductive biology of reptiles. III. The Uracoan rattlesnake, *Crotalus vegrandis* Klauber (Reptilia, Serpentes, Viperidae). *Journ. Herp.*, 13(3): 373-374.

Platz, J. E. and J. S. Mecham

1979. *Rana chiricahuensis*, a new species of leopard frog (*Rana pipiens* complex) from Arizona. *Copeia*, 1979(3): 383-390.

Ralin, D. B. and J. S. Rogers

1979. A morphological analysis of a North American diploid-tetraploid complex of treefrogs (Amphibia, Anura, Hylidae). *Journ. Herp.* 13(3): 261-269.

Vogt, R. C.

1979. Spring aggregating behavior of painted turtles, *Chrysemys picta* (Reptilia, Testudines, Testudinidae). *Journ. Herp.*, 13(3): 363-365.

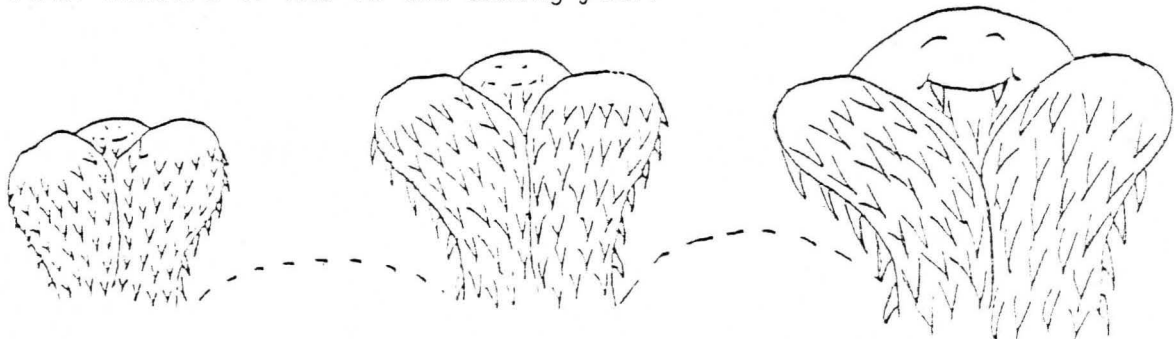
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ELECTION RESULTS OF SOCIETY OFFICERS

After lunch at the Topeka Zoo, KHS elected a secretary-treasurer and a president-elect for 1980. Peter Gray, our president-elect for 1979, will be president in 1980.

1980 President-elect: Jeffrey Burkhardt
Secretary-treasurer: Larry Miller

Congratulations to both of you. I'm looking forward to working with you and other members of KHS in the coming year.



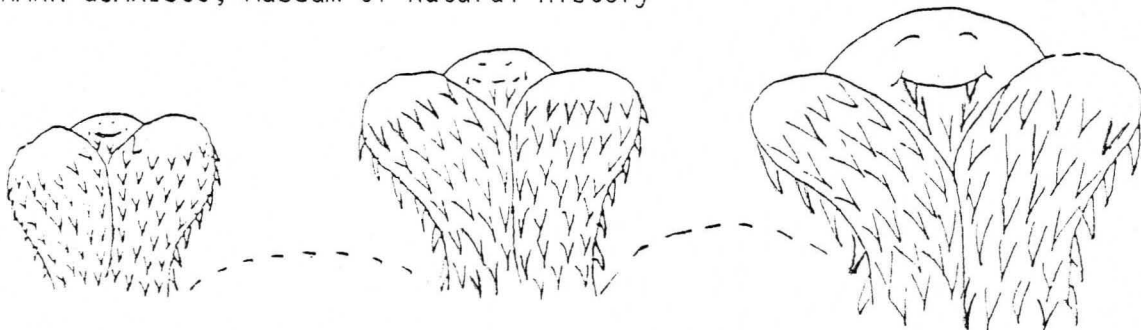
THE 1979 HOPPING HEMIPENIS OF HORROR AWARD

Yes, my friends, another year has past, and it's time to select this year's winner of the "Hopping Hemipenis of Horror" award from the many myoptic individuals and institutions, who by their actions during 1979, have unknowingly been competing for this coveted prize. Without further ado, the winner is Interior

Secretary Cecil Andrus, who recently fired government biologist Kenneth Dodd. Dodd wrote a letter to the owner of a Washington restaurant asking him to stop serving Timber Rattlesnake (Crotalus horridus) since it is rapidly approaching extinction in many parts of its range. Unfortunately, for the biologist, the restaurant was a favorite dining place of our illustrious award winner. When the Interior Secretary heard of the letter, he fired Dodd for overstepping his bounds.

I'm sure that most of us are aware of the prejudices that the general public has concerning our herpetofauna. These negative feelings often lead to the wanton killing of many snakes, lizards, and even turtles each year throughout the country. This happens so often and in so many different ways, that if someone were to create a game along the lines of "Clue" (example: a box turtle was killed by Mr. Fink with a car on the interstate), it would take weeks to finish one game. Apparently, there are a number of people who are aware of this situation. This can be seen by the current legislation concerning endangered species. Kenneth Dodd, who works for the Interior Department's Office of Endangered Species, apparently is one of these enlightened people. When he spoke out to retard the possible extinction of a species of our native wildlife was he commended or encouraged? No, he was fired from the Office of Endangered Species! Why was he fired? What sacred boundary did he cross? Did he violate some ancient taboo of the Interior Secretary, or, possibly, insult his stomach's best friend? We won't know for certain, since Interior officials had no comment on the matter. In any case, I take pleasure in presenting Secretary Andrus with the triple-H award for 1979.

---HANK GUARISCO, Museum of Natural History



HERPS ABUNDANT DURING THIRD ANNUAL CHIKASKIA RIVER WILDLIFE STUDY

(Taken from the Bulletin Oklahoma Herpetological Society, Vol. 4(2&3))

Seventeen species of amphibians and reptiles plus over thirty species of other vertebrates were either collected or observed during the Third Annual Chikaskia River Wildlife Study that was held over Easter Weekend 1979. The meeting, which was centered on land owned by the Freeman Dillard Family east of Caldwell, Kansas in Sumner County, attracted nearly 100 persons from Kansas and Oklahoma. Many of those attending were elementary and high school students from nearby Caldwell and South Haven. Herpetologists from both Kansas and Oklahoma also showed up for the adventure.

The meeting was held in order to give people that would not otherwise have a chance to learn about the flora and fauna of the Chikaskia River area that opportunity and to collect and observe certain species of plants and animals in their natural habitat. It was also held to draw attention to the fact that the Chikaskia is a relatively clean and unspoiled river that should be preserved.

The wildlife study got off to a great start the morning of Friday, 13 April. Early arrivals were treated to a close-up view of two adult deer and they were serenaded by several species of birds and frogs. Christy Reed and Holly Warner, third grade students from Caldwell (with the help of Holly's mother, Cheryl) quickly discovered a red-sided garter snake under a rock and a large black rat snake under a log. Both snakes were found within a few meters of the main camp and since the temperature had not warmed up too much, they were both very sluggish and easily collected.

Mrs. Warner next collected a fence lizard from a sandy area near the waters edge. As more people arrived and the temperature increased, more and more herps started showing themselves.

The first organized field study group headed north from the main campsite at about noon Friday. The temperature was over sixty degrees by that time and the sun was bright. What a beautiful day to be in the field.

The group included students, parents, teachers, and a reporter and photographer from THE WICHITA EAGLE, a large newspaper in Wichita, Kansas. The field trip lasted about three hours and covered about four kilometers along the rivers edge and surrounding pasture land. The two men from the newspaper seemed quite knowledgeable of the wildlife of the area. They took dozens of pictures and talked to students and adults. They also took some time to turn rocks and logs. Several new specimens were added during this first organized field trip.

The temperature dropped quickly after sundown Friday evening. Most of the evening was spent around the campfire. Several of the "younger" people decided to stay up all night and visit. They succeeded! Most, however, retired to their tents and campers for a "cool" nights sleep. The temperature dropped to the upper thirties before morning.

After breakfast Saturday morning a carload of people drove to town and bought the morning paper. Quinn Ward, Rohn Eckermann, and Holly Warner then found their pictures on the front page of the KANSAS section of THE WICHITA EAGLE. A photo of a large Rocky Mountain toad perched on the hand of an unidentified herpetologist also made the paper along with a good story about the river study.

Saturday the 14th warmed up fast. There was almost no wind and by the time the group started on the final organized field trip at 2:00 PM the temperature was nearly eighty degrees! Lizards, frogs, and a few more snakes were added during the Saturday hike. Many of these specimens were then photographed and set free to wait for another year.

Prizes were awarded to the persons that collected the longest and the shortest snakes during the field trips. The prizes were awarded during the evening meal Saturday. Quinn Ward took honors with a Texas brown snake for the shortest. His little reptile was only nine centimeters long. Philip Doty won the prize for the longest with a black rat snake that was a meter and a half long. Both Quinn and Philip are sixth grade students at Caldwell Elementary School.

Many people headed for home after the evening meal Saturday, but a few chose to spend one more night along the banks of the Chikaskia. Larry Andrews, a KHS and OHS member from Ponca City, his sister, and three friends spent part of the night setting and checking limb lines in hopes of catching an alligator snapping turtle. No turtle was caught, but a fair size channel catfish was collected! A few other people spent some time around the campfire telling stories til the wee hours of the morning. Some even got some sleep!

Clean-up went fast Easter morning and everyone bid each other good-bye and were on their way home before noon. It had been another enjoyable weekend along the Chikaskia and its success can probably best be stated by a question asked by Vikki Dillard, a first grade student that has attended all three Chikaskia River River Studies, as the group sat around the campfire late Saturday night. Vikki asked, "When will we have another one?"

The five species of amphibians identified during the adventure were Bufo w. woodhousei, Acris crepitans blanchardi, Pseudacris clarki, Rana catesbeiana, and Rana pipiens.

The twelve species of reptiles were Terrapene o. ornata, Chrysemys scripta elegans, Sceloporus undulatus garmani, Cnemidophorus sexlineatus viridis, Diadophis punctatus arnyi, Coluber constrictor flaviventris, Lampropeltis getulus holbrooki, Thamnophis sirtalis parietalis, Storeria dekayi texana, Nerodia s. sipedon, Nerodia r. rhombiferia, and Elaphe o. obsoleta.

The wildlife study was organized by Gene Trott of South Haven, Kansas and Larry Miller of Caldwell, Kansas. Several land owners along the Chikaskia gave permission for use of their land during the weekend study. A few teachers from Caldwell, parents, and a local Boy Scout Troop helped make the weekend a success.

Plans are already underway for the 1980 study. The dates of 2-4 May are planned. More information on that will be in future newsletters.

---LARRY MILLER, 524 Osage, Caldwell, KS 67022

COMMUNAL NESTING IN COLUBER CONSTRICTOR

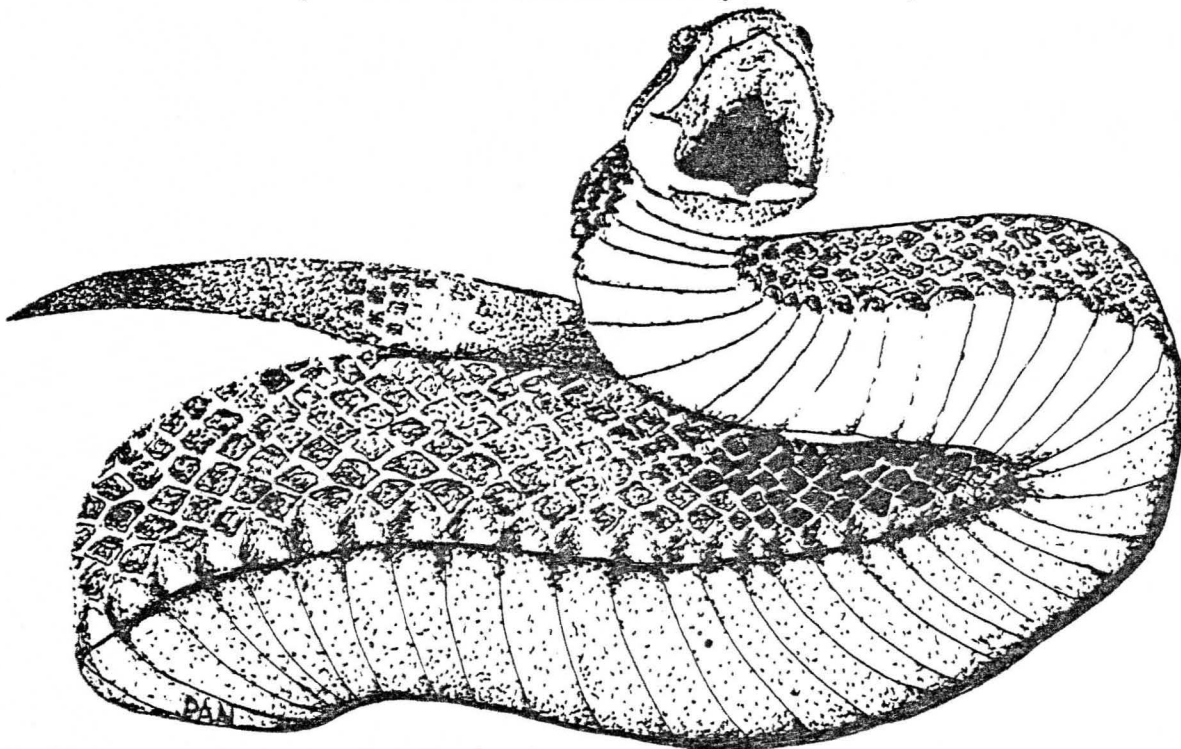
Several years ago, Hobart Smith and Tom Swain discovered a nest containing eighty-nine yellow-bellied racer eggs and twenty-nine empty shells under one large rock. Since the clutch size for this species ranges from five to twenty-six eggs, the large group of eggs may have been deposited by four to eighteen different females. The authors believe, that in this instance, communal nesting was prompted by less than ideal habitat conditions. Two factors appeared to limit the number of suitable egg deposition sites: habitat destruction due to human encroachment, and, the type of soil found in the area. The eggs were brought back to the laboratory where ninety-five percent of them successfully hatched.

Therefore, we can view certain instances of communal nesting as adaptive responses to adverse conditions. It would be interesting to discover if the communally nesting females just happen upon the same site because of the very limited number available, or, if they have acquired some specific behavioral adaptation which enhances their aggregation. For instance, a female may be attracted to a certain site by the scent of other gravid females already present at that location. Would these same females deposit their eggs in a communal nest if there were no shortage of suitable nesting areas?

Swain, T. A. and H. Smith

1978. "Communal Nesting in Coluber constrictor in Colorado (Reptilia: Serpentes)." Herpetologica 34(2): 175-177.

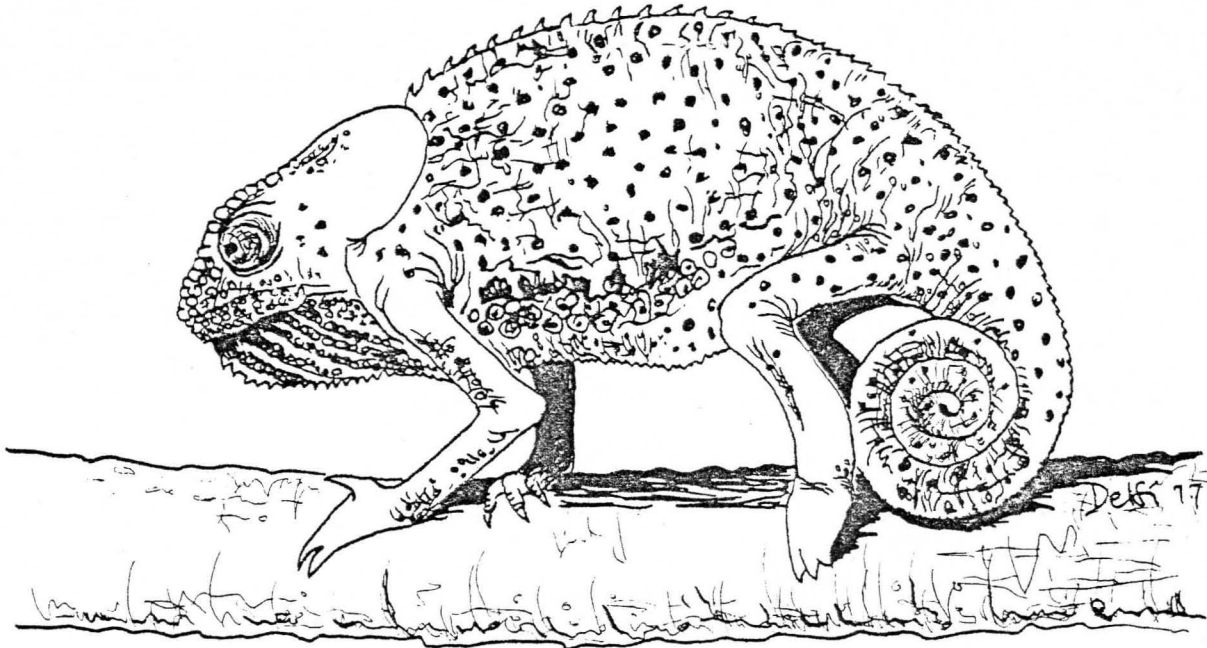
---HANK GUARISCO, Museum of Natural History, Lawrence, KS



Black Rat Snake by Pat Neeland

KANSAS FISH AND GAME CHOOSES CONSULTING HERPETOLOGIST

Joseph T. Collins was recently chosen by the Kansas Fish and Game Department to be its consulting herpetologist. Therefore, I would like to extend my congratulations to him on behalf of the Kansas Herpetological Society. I am sure that both the state of Kansas and Collins will be enriched by this association.



FIELD OBSERVATIONS OF THE ALLIGATOR SNAPPING TURTLE IN FLORIDA

In view of the small amount of information available concerning the natural history of Macrocllemys temminicki, the largest fresh-water turtle in the world, I will summarize Michael Ewert's observations of the nesting habits of this species. This information may be useful to those KHS members interested in determining the status of the alligator snapper in Kansas.

Although Macrocllemys is considered to be one of the most aquatic turtles in its habits, a young individual was seen basking on a log in the middle of a large Texas river. Several false map turtles (Graptemys pseudogeographica) were basking on the same log. The turtle was completely out of the water and appeared to have been dry. When the author approached, however, the turtle abruptly dove into the water.

Alligator snapping turtle nests were found by thoroughly searching the banks of the Apalachicola River in the Florida panhandle. The predominant vegetation found in this area is southern floodplain forest. However, there are also raised sandy areas that are only partially covered with xeric vegetation. A total of seventeen nests occupying a wide variety of microhabitats

were discovered. Nests were found in zeric situations on the exposed tops of sandy mounds. Nests were also found in shady locations in groves of trees. There were only two locations where nests were not encountered: open sandbars and low forested ground covered with leaf litter. The nest soil consisted of sand or a mixture of sand and silt. From these observations we can see that Macrocllemys is not particular in its choice of nesting sites. From his observations, Ewert estimated the nesting season to be the first two weeks of May. Some other parameters of the nests include: distance from the nearest water body (12 m.), height of nest above water level (1.6m.), soil depth to top of nest (20 cms.), nest depth (13 cms.) diameter of nest (20 cms.), number of eggs in nest (34).

Happy hunting next spring.

Ewert, M. A.

1976. "Nests, Nesting and Aerial Basking of Macrocllemys Under Natural Conditions, and Comparisons with Chelydra (Testudines: Chelydridae)" *Herpetologica* 32(2): 150-156.

---HANK GUARISCO, Museum of Natural History, Lawrence, KS.

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FEDERAL RULE PROPOSED

....SEND COMMENTS ABOUT THE FOLLOWING PROPOSED RULE TO:

Director, Office of Endangered Species, U.S. Fish and Wildlife Service,
Department of the Interior, Washington, D.C. 20240

....DEADLINE FOR RECEIVING COMMENTS:

31 January 1980

....LOCATION IN FEDERAL REGISTER:

Vol. 44, No. 214, 2 November 1979, pp. 63474-76.

....SUMMARY:

The Service proposes that five species of foreign reptiles be listed as Endangered species. This action is being taken because these species have been subject, at least in part, to malicious killing, overcollection, competition, and habitat destruction by human activities. The species included in this proposed rule are as follows: Fiji Island banded iguana (Brachylophus fasciatus), San Esteban Island chuckwalla (Sauromalus varius), and two Round Island boas (Bolyeria multicarinata and Casarea dussumieri).

With the exception of the San Esteban Island chuckwalla, all are strictly protected in the country of origin. This rule would provide additional protection to wild populations of these Endangered reptiles.

---TOM BERGER, Museum of Natural History

1980 LANDRETH ZOO RESEARCH FELLOWSHIPS OKLAHOMA CITY ZOO

Continuing a program initiated in 1978, the Oklahoma City Zoo will offer four research fellowships for 1980. Each fellowship runs for 12 weeks and carries a weekly stipend of \$50. Furnished living and kitchen accommodations are available for research fellows in the Landreth Animal Research Center on the zoo grounds. Laboratory and zoo library facilities are also available.

DEADLINE: Applications for 1980 fellowships must be received at the zoo by Feb. 1, 1980. Notification to applicants will be made by March 1, 1980.

FELLOWSHIP AWARDS: Applications will be reviewed by zoo staff and the fellowship committee of the Animal Research Council. Awards will be based on academic and potential research qualifications of applicants, appropriateness and applicability within the zoo environment of the research problems and other factors as indicated. It will be assumed that applicants will devote full time during their tenure to their projects unless they indicate and explain otherwise. Priority will be given proposals that can be finished within the 12-week time period.

RESEARCH PROBLEMS: Problems to be studied should be those which can be pursued most appropriately within the zoo environment. A list of past and potential research problems identified by the zoo staff is available by writing or calling the Research Curator.

HOW TO APPLY: For additional information and application forms, write: Dr. Jeffrey H. Black, Interim Research Curator, Oklahoma City Zoo, 2101 NE 50th, Oklahoma City, Oklahoma 73111.

The Staff of the KHS Newsletter
wish all of you a Happy & Prosperous
New Year!



ANYONE INTERESTED IN SUBMITTING ARTICLES FOR THE KHS NEWSLETTER SHOULD SEND THEM TO HANK GUARISCO, EDITOR, MUSEUM OF NATURAL HISTORY, UNIVERSITY OF KANSAS, 66045. ASSOCIATE EDITOR, ROSE ETTA KURTZ, MUSEUM OF NATURAL HISTORY, UNIVERSITY OF KANSAS, LAWRENCE, KS 66045.