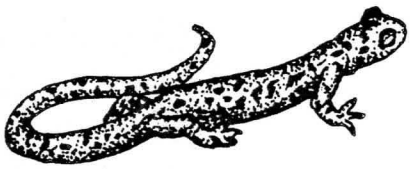

KANSAS HERPETOLOGICAL SOCIETY

NEWSLETTER

NUMBER 45 OCTOBER 1981

KHS EIGHTH ANNUAL MEETING TO BE HELD IN WICHITA

The annual meeting of the Kansas Herpetological Society will be held on Saturday, November 21, at the beautiful Sedgwick County Zoo in Wichita in the Education Room. The itinerary for the meeting is:

9:30 - 10:00	Coffee & Donuts
10:00 - 10:30	Dr. Henry S. Fitch, "Snake Populations in Kansas."
10:30 - 11:00	John Simmons, "Amazon Orgy."
11:00 - 11:30	Ray Loraine, "Conservation Efforts of the Iowa Herpetological Society."
11:30 - 12:30	Lunch (The KHS Executive Council Meeting)
12:30 - 1:00	Joseph T. Collins, "Status of Herps in Kansas, 1981."
1:00 - 1:30	KHS members show their ten favorite slides
1:30 - 3:00	KHS Annual Auction

This year, the KHS is very fortunate to have a fine program for the annual meeting. Ray Loraine, a relatively new member of the KHS, will tell us what the Iowa Herpetological Society (IHS) has done to promote the conservation of reptiles and amphibians. One example of what the IHS has done relates to the wanton shooting of turtles (see next page of this issue for article). John Simmons, collection manager of the University of Kansas' herpetological collection, will show us some interesting slides of his adventures in the Amazon. Joseph T. Collins, known for his study of the herpetofauna of Kansas, will give us a current view of what is known in this area.

We are also very fortunate to have Dr. Henry S. Fitch on the program. Dr. Fitch, a well-known naturalist who has explored the biological world of many different groups of animals, is a pioneer in the area of ophidian ecology. For the last thirty-four years, he has carried out numerous biological investigations of the snake fauna of the KU Natural History Reservation.

Following lunch, elections for KHS officers (president, secretary/treasurer) will be held. Most of the afternoon will be devoted to the showing of your ten best slides of herps and the annual auction. Books, cages, snake hooks and bags, art objects, drawings, and anything else of a herpetological nature will be auctioned, except live herps or herp body parts. Larry Miller will donate several new KHS tee shirts, Collins will donate many herp publications, several good snake cages will also be available. Last year, there was a great interest in frozen and live mice, especially a strain of hairless mice. They will be available again this year. So, bring your items to donate, and bring money to bid on the items you want.

Be sure to attend the annual meeting, and bring a friend.

FALL FIELD TRIP OF THE KHS AT WILSON LAKE VERY ENJOYABLE

Some KHS members arrived at expansive Wilson lake just after sunset on Friday evening. Many toads (Bufo sp.) and frogs (Rana sp.) were seen on the roads around the lake, indicating that it had probably rained there recently. It was a beautiful night. The air was still, and the moonlight made flashlights unnecessary. The next morning, Jeff Burkhart and several students arrived at camp. Before it became too warm, we searched some of the numerous hillsides near the lake and found some interesting herps. Many juvenile collared lizards (Crotaphytus collaris) were found under rocks. Some had brilliant orange or bright yellow markings. Jim Pilch found a juvenile Massasauga (Sistrurus catenatus) crawling along a rocky hillside. Many western box turtles (Terrapene ornata) were also found beneath rocks.

Most of the afternoon was spent swimming, canoeing, or seining. Our collecting activities also provided some ingredients for our evening meal. Several dozen crayfish were steamed, breaded and fried with a large puffball mushroom. This was a tasty addition to the delicious main course of "Slumgullian" (Jeff's unique concoction of beans, onions, green peppers, etc.).

The emergency spillway held a special fascination for at least one member who managed to obtain some very interesting gypsum crystals and fossils (mainly shark teeth). During the middle of the afternoon when our mouths began to get dry, Jeff Burkhart produced the root of an interesting herb called Beach Sampson echinacea (Echinacea angustifolia). He explained that the Indians would use this plant for a variety of medicinal purposes. Sometimes they would chew a small piece to alleviate thirst. So, emulating the native Americans, we passed the root among each other, and were very pleasantly surprized at the fresh taste in our mouths. This could replace chewing gum, if marketed properly. Commercials would be easy enough to formulate: Picture the "Three Wise Men" travelling for days through the desert - one of the gifts they bear is a pouch of "The Root," but due to the searing heat, they use most of it on their journey. As fortune would have it, they find themselves next to the emergency spillway, and decide to substitute crystals for "The Root." The possibilities are virtually endless.

After several hours of road driving in the evening, which turned up very few herps (one small Gastrophryne olivacea, the Great Plains narrowmouth toad), we gathered around a free-form fire to cook marshmellows and tell ghost stories.

The next day, most of the herps were photographed and released were they had been collected. The following is a list of the reptiles and amphibians that were observed during the weekend field trip:

tiger salamander - Ambystoma tigrinum
Woodhouse's toad - Bufo woodhousei
great plains narrowmouth toad - Gastrophryne olivacea
plains leopard frog - Rana blairi

ornate box turtle - Terrapene o. ornata
six-lined racerunner - Cnemidophorus sexlineatus
collared lizard - Crotaphytus collaris
great plains skink - Eumeces obsoletus
Texas horned lizard - Phrynosoma cornutum
northern prairie lizard - Sceloporus undulatus garmani
eastern yellowbelly racer - Coluber constrictor flaviventris
prairie ringneck - Diadophis punctatus arnyi
great plains rat snake - Elaphe guttata emoryi
western hognose snake - Heterodon nasicus
prairie kingsnake - Lamropeltis c. calligaster
red milk snake - Lampropeltis triangulum syspila
speckled kingsnake (DOR) - Lampropeltis getulus holbrooki
coachwhip - Masticophis flagellum
northern water snake - Nerodia s. sipedon
massasauga - Sistrurus catenatus
red-sided garter snake - Thamnophis sirtalis parietalis
lined snake - Tropidoclonion lineatum

-----Hank Guarisco, Museum of Natural History, University of Kansas, Lawrence, KS 66045.

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ANYONE INTERESTED IN A COLORFUL KHS T-SHIRT?

A limited number of T-shirts with the same design as appears on the cover of this newsletter will be printed at the expense of KHS Secretary/Treasurer, Larry Miller, in order to find out if KHS members might be interested in such dress. About twenty shirts will be printed and a few will be in each of the following sizes: small, medium, or large adult sizes. They will be available in red, light blue, and yellow.

The shirts should be ready before the first of November and will be sold on a first come basis. At least one or two will be held for the November KHS auction, so hurry if you would like one of these unique shirts in time to wear to the annual meeting.

Mail your request, along with a check for $7.00 (the cost of the shirt plus postage) to Larry Miller if you would like a shirt. Be sure to state the size and color you would like. Also state if you have a second or third choice. Your shirt will be mailed to you or your check will be returned if your size or color is sold out.

VANDALS SLAY TURTLES IN DALLAS COUNTY (IOWA)

Dozens of turtles, including several of a threatened species, apparently have been slaughtered by vandals recently in Dallas County. Ray Loraine of Adel said he discovered the dead turtles about 1½ miles south of Granger, near Beaver Creek, after seeing people shooting from a bridge on a gravel road. Most of the gunners appeared to be using .22-caliber rifles, some of which were equipped with telescopic sights, Loraine said.

Don Perschau of Des Moines, an officer in the Iowa Herpetological Society, visited the area after being contacted by Loraine. Perschau, Loraine, and another Des Moines man found at least 40 dead or injured turtles and six snakes. "It was an absolutely sickening sight," said Perschau. He said the turtles included five Blanding's turtles, which are a threatened species in Iowa. Perschau said 29 painted turtles and 10 snapping turtles also were shot. He speculated the reptiles had gathered in the area because dry weather had reduced their habitat.

While he was investigating the incident, Perschau said he hearned that turtles shootings apparently have occurred before in the same area. One person told him of finding dead turtles and snakes, as well as a heron and a beaver in 1977. Perschau also found shells from turtles that appeared to have been shot earlier this spring.

Drake University herpetologist, James Christiansen, said he's found turtle shooting to be a fairly widespread problem. "Shooting turtles is a 'sport' to some people," he said. Some turtle species habitually bask on logs or float near the water's surface, where they're easy targets for gunners.

Most reptiles have no protection under Iowa law, but it is illegal to kill or possess threatened or endangered species, including the Blanding's turtle. Anyone convicted of killing a Blanding's turtle could be finded up to $100 or receive a jail sentence of up to 30 days. But Rick McGeough, law enforcement superintendent for the Iowa Conservation Commission, said he couldn't recall any prosecutions under Iowa's 6-year-old endangered species law. McGeough acknowledged that it's not uncommon for people to shoot at songbirds, snakes, frogs or other small animals. "A certain segment of people don't have any respect for any of those things," he said. Even if the target isn't a protected animal, law officers often charge persons with shooting a rifle over a road or over water, NcGeough noted.

-----taken from the Des Moines Register, June 10, 1981, written by Larry Stone.

Iowa Herpetological Society Editor's Note: One of the functions a herp society as ours should have is to bring to the public's eye the wanton vandalism and waste which occurs to the environment and it's animal inhabitants. From owl and eagle shooting, to rattlesnake roundups, to turtles shooting, it is up to the small, specialized groups such as ours to bring the problem forward and at least create an awareness.

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SOUTH CAROLINA STATE REPORT: ENDANGERED SPECIES PROJECTS YIELD VALUABLE MANAGEMENT DATA

American Alligator

In South Carolina, the American alligator is near the northern limit of its range, where it exhibits slow growth rates and a long generation interval. It occupies extremely heterogeneous habitat and, therefore, progress in estimating its population level and reproductive parameters has been slow. Nevertheless, during the 1980 night census cruises to evaluate habitat type, 1,968 alligators were observed in 526 miles cruised. The census revealed an upward trend in the count on the Ashepoo River and the highest count recorded for the Combahee River.

An ongoing activity of the South Carolina Program has been the management of "nuisance alligators." (In general, a bona fide nuisance exists when the animal exceeds 4 feet in length and is a threat to life and property.) In fiscal year 1980, 208 alligators were captured and 55 additional complaints were investigated. Nuisance alligators are routinely live-captured and relocated, but preliminary indications are that many return to the point of capture. These returns occur despite relocation to different watersheds and distances in excess of 20 miles.

Loggerhead Sea Turtle

In recent years, four barrier islands along the coast of South Carolina have been the scene of some very interesting and valuable research on the loggerhead sea turtle. Radio and sonic telemetric monitoring of 36 nesting loggerheads during the 1977-79 nesting seasons provided some of the first information on the movements and habitat used by the species while at sea. Since all but a small fraction of the turtle's life is spent at sea, it is obviously important to have this information in developing management plans.

One discovery made through the monitoring operation was that the turtles remain in the surf zone for extended periods of time prior to coming to shore. This fact demonstrates a potential for disturbance from the beach which was unkown before, and which would not be apparent to those on the beach causing the activity. The extensive use of nearshore water by the nesting loggerheads throughout the nesting season clearly demonstrates, also, the potential for conflict with nearshore commercial fishing. Finally, concentration areas were found to occur around obvious physical features such as jetties and shoals of the four study islands (North Island, Sand Island, South Island, and Cape Island) and along high relief contour lines in the offshore topography.

In a second phase of its loggerhead study, the South Carolina Program succeeded in quantifying the nesting effort and the causes and extent of nest mortality for a major portion of the state's loggerhead rookery. This is particularly important in light of increased nest losses, habitat degradation, and increased mortality of subadults and adults which have reduced populations of all marine turtle species.

Prior to this research, it was generally believed that the only management necessary for nest protection was to reduce raccoon populations. This careful multi-year study, however, found that the relationship between nest predation by raccoons and red foxes, poaching, and erosion are compensatory. Therefore, several management actions may be necessary, depending upon the particular attributes of the island habitat.

Loggerhead studies continue in South Carolina and are planned through 1982. Additional planned and ongoing activities include radio-telemetric monitoring of loggerhead sea turtle strandings to determine a more precise relationship between observed strandings and actual turtle mortality. Aerial surveys to obtain an index of relative abundance and the distribution of marine turtles utilizing offshore waters and nesting beaches in South Carolina are in progress.

Pine Barrens Treefrog

The pine barrens treefrog (Hyla andersonii) is considered to be one of the rarest treefrogs in eastern North America. Isolated populations are present in South Carolina which the state protects as endangered. Program efforts on behalf of this species have been to locate additional populations in the South Carolina sandhills and to quantify the habitat of the species in terms of vegetation, soils, and hydrology.

Drought conditions during the summer of 1980 hampered the discovery of new locations of the treefrog. Only three new localities were found and many previously known colonies were inactive during 1980. There was some new habitat found in Kershaw, Chesterfield, and Lee Counties which may support treefrogs during a summer with normal rainfall. Researchers have been suprised by the continued absence of frogs in the sandhills between Columbia and Aiken, despite the presence of suitable habitat and favorable calling conditions.

Current findings indicate the species has a strong fidelity to seepage bogs containing a mixture of grass-sedge-dominated meadows with few shrubs or trees, interspersed with shrub thickets. This type of vegetation is known as "hillside bogs." The community is maintained by fire or mechanical means.

In the future, South Carolina field biologists intend to start their colony searches earlier in the year, such as March or April. They also plan to continue their searches of the sandhills and known localities and to prepare habitat descriptions for at least 30 colonies.

Gopher Tortoise

Work is also being done with another state species, the gopher tortoise (Gopherus polyphemus), which is probably the most endangered reptile in South Carolina. Only 1500 tortoises remain in 2 or 3 colonies in Jasper County in the southern-most part of the state. Since all of its remaining habitat is privately owned, the state hopes to conserve this species by working closely with the landowners in implementing land management plans which are compatible with its needs. For instance, gopher tortoises feed on ground forbes and therefore controlled burning is sometimes necessary

to allow this type of growth. Future plans for the species include acquisition of land through the Heritage Trust Program and, perhaps, the reintroduction of gopher tortoises into historical habitat or translocation of the species.

Looking to the Future

The program expects to benefit from revenue collected with the state's newly created nongame and natural areas tax checkoff, which is similar to the successful checkoff systems established by other states. Regarding the new funding source and future emphases of the South Carolina Program, Mr. Kohisaat stated:"We would like more and more to emphasize management of our state's endangered species. Perhaps with the checkoff funds available, we will be able to do more work with smaller nongame animals, such as reptiles and amphibians. Also, we would like to do more work with all raptors, instead of just with eagles."

-----taken from the Endangered Species Technical Bulletin, VI(8):6-11, August 1981.

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FASHIONS GET A SNAKY LOOK

The news is not good for those who are not fond of reptiles. The snaky look as slithered into style again. Now, however, the look goes beyond a simple pair of shoes, a handbag or an occasional belt. According to "Daily News Record," men's accessories are taking a reptilian turn. Now there are snakeskin bow ties and snakeskin cummerbunds, although at first glance the latter might appear to create an authenticity problem, considering the width of the average snake and the width of the average cummerbund. But we're not dealing with the average snake here; these items aren't made from skinny rat snakes or even rattlesnakes. According to the publication, some goods are made from natural, black and white python skins. When you consider the girth of a python, its skin does make up a nice, wide cummerbund.

-----taken from the Kansas City Star, Sunday, August 23, 1981.

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PET INDUSTRY REMINDS RETAILERS OF TURTLE LAWS

Inquiries concerning the legality of turtle purchase and sale by retailers continue to be received by the Pet Industry Joint Advisory Council. To clarify the issue, they advance these guidelines:

No turtles with a carapace length of less than four inches can be sold, held for sale, or offered for sale as a pet in the United States according to federal law. Any oerson who violates the turtle ban, which has been in effect since May 23, 1975, is subject to a fine of not more than $1,000 and/or imprisonment for more than one year for each violation.

In addition to the federal FDA ban, over 30 states have laws on their books prohibiting or restricting the sale of turtles. "Don't buy a turtle just because your supplier says it is legal," warns PIJAC. "Check the law yourself."

-----(submitted by Jim Knight, taken from: Pets-Supplies-Marketing (PSM), 34(11):54).

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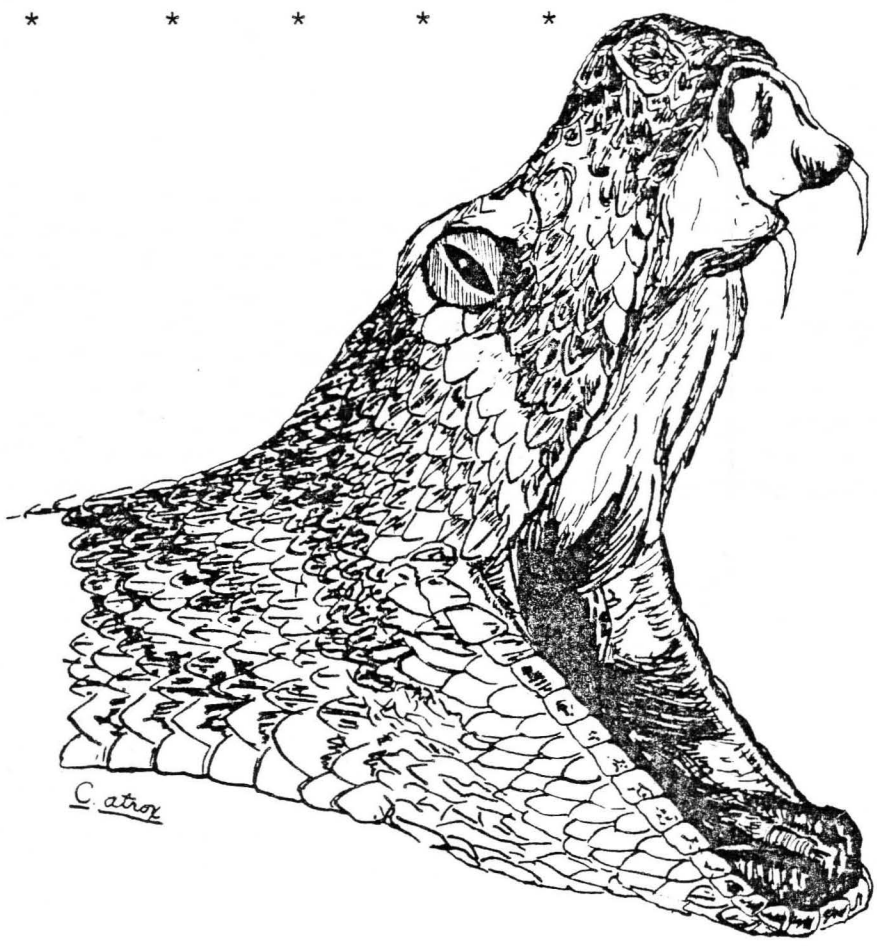

(drawing by Steve Morey)

EDUCATORS, FIELD TRIPS, AND LIABILITIES

Many school administrators have eliminated field trips from their curriculum because of (1) the high cost of transportation, (2) the increasing difficulty of disciplining students, (3) the "back to basics" idea, and (4) the increasing frequency and expense of liability suits. Another reason for the demise of the educational field trip is that some teachers have used it simply as a method for getting out of the classroom with little or no plan to integrate it with the curriculum. This relates directly to the liability problem, since the poorly planned and executed field trip not only gives field trips a bad name but also leads to increased potential for a liability suit. This article will suggest ways to avoid the liability problem and also will demonstrate to school officials that statistics show academically-related field trips are actually a minor source of liability suits.

Legal Trends

Two legal trends that affect all school activities, including field trips, recently have developed. First is the large number of tort cases (breach of duty) brought against schools and teachers across the country, partly because schools in most states can no longer consider themselves immune from litigation under the old doctrine of "sovereign immunity."

Research by Alexander (1971) and Krepel et al. (1977) shows that little if any of the current increase can be attributed to field-trip activities. Based on the number or reported injuries, the "danger spots" that may lead to litigation are interscholastic athletics, playground activities, physical education, and shop classes. In a survey by Duval and Krepel (1978) the question, "Have you had any recent court decisions regarding teacher responsibility and liability in the matter of field trips?" was asked of 50 state attorney generals, a sample of state superintendents of instruction, and some of the leading education associations. Only in Kentucky was there a field-trip-related incident, and the court refused to consider the matter since the drowned victim was over 18 years of age.

The second trend is increased amounts of claimant damages sought in liability cases. Lawyers for plaintiffs seem to use the "deep pocket" approach in their claims, which increases the incentive to sue as well as the cost of settlements.

Legal Responsibilities of the Educator

Howard (1968) states, "Teachers are personally liable to pupils for injuries occurring because of teacher negligence." Putting this point in perspective, Schimmel (1972) comments, "What Mr. Howard fails to point out is that every citizen is personally liable for injuries that occur because of negligence." The principles of liability are the same for all citizens. However, to avoid being considered professionally negligent, a teacher must prudently plan and carry out activities for students.

Hoffman (1970-71) quotes the Supreme Court of Wisconsin: "Teachers are generally held in high regard by the courts, and both statutory and the case law reflects this interest. However, teachers are presumed to know the laws and the policies established by their local district's board of education." Teachers should consider it part of their responsibility to become familiar with state liability laws. Teachers should also ask the advice of the school district's legal counsel before planning special programs or activities. Above all, they should not hesitate to contact the state's attorney general for advice.

When an accident occurs that leads to a suit, the attorney for the plaintiff (the victim or guardian) must prove three points. First, it must be proven that the educator did not perform the assigned or assumed duties correctly: legally this is referred to as "breach of duty." Did the educator act with reasonable care, or as any prudent teacher would have done under similar circumstances? Second, the breach of duty must be shown to have contributed to the injury. Could circumstances leading to the injury have been avoided by preplanning or through actions the teacher could have taken? Third, the attorney must prove that there was contirbutory negligence on the part of the plaintiff. Was the possibility of the accident increased by the behavior of the child? This third point is related directly to the age of the child. Younger children legally are less responsible for their actions than are older children.

How Not to be Negligent on a Field Trip

Not all teachers should consider using field trips as part of their program. They should be avoided by those who are not organized, have poor control over students, or are uncomfortable outside the classroom environment. Principals and other school administrators should identify and separate these teachers, as well as those who would use field trips merely to get out of the classroom, from those who see the field trip as a legitimate part of an innovative program.

The first step in avoiding liability suits is a good, written plan which the principal should use to evaluate the field trip to decide just jow many students could participate effectively and safely. All too often, administrators do not like to adjust schedules, and teachers thus may be expected to accommodate too many students for a safe meaningful experience. This is expecially a problem for field trips to natural environments. The following steps whould be taken in planning a field trip:

A. Pre-trip Planning
   1. Develop clear goals for the field trip.
      a. How does the field trip relate to ongoing studies?
      b. What activities before and after the trip could be developed around it?
   2. Select an appropriate site.
      a. The teacher should decide what facility or natural area will best suit the needs of the students. A trip to a museum, zoo, or aquarium may may be more helpful than a trip to a marsh to study fish. On the other hand, if the object is to study coastal ecology it would be better to visit the natural enviroment.

b. Never take students to a site that you have not personally visited.
   --- A site should be safe and easily traversed by students.
   --- Know the restrictions on use of land and get written approval from landowners. Note: Liability of the landowner varies according to the accessibility of the property. If it is private property not in commercial use and you receive permission, the landowner's responsibility is the same as previously mentioned on personal liability. If the owner has a commercial concern that people pay to visit, his or her liability can be much greater.
   --- Preview activities planned for your students. You cannot, for example estimate the depth of water and mud in a salt creek just by looking at it, and an untried seining exercise could be very dangerous for students.
   --- Be sure to coordinate your activities with the proper officals if visiting a museum, park, or other facility. Many of these areas have interpretative naturalists or educators that can provide programs or other assistance.
   --- Be aware of local conditions such as weather and tides that might create a problem.
   --- When possible, locate people who are knowledgeable about the area and seek their advice or assistance on the trip.

3. Be sure to bring and use proper equipment. Train students in the use of special equipment.
4. Have enough help. One adult for 10 secondary or one for 5 primary students are suggested ratios. Select only responsible adults who are interested in the program and will actively supervise. Do not use chaperones who insist on bringing other family members, especially younger children.
5. Prepare a fact sheet for parents and students which includes activities, itinerary, instructions on clothing, expected behavior. High-risk activities like scuba diving, snake collecting, and mountain climbing should be explained thoroughly. Parents should be required to sign the sheet to indicate that they have read the information. This does not waive their right to sue; it just demonstrates that the teacher provided information to the parents.
6. Require a simple health form asking about allergies (e.g., bee stings) or ailments that may occur on the trip. The name and phone number of each student's physician and a home phone number should be included. These health information sheets should be taken along on the trip. They can be invaluable in an emergency.
7. Develop an emergency plan. If there is an accident, know where to get help, especially from life squads and hospitals. Go over the plan with your assistants so that everyone knows what to do.
8. After planning is complete and all information prepared, obtain official approval for the trip. Go through proper channels according to school or institutional policy. This is a very important point that could be reviewed in court.
9. Safe, appropriate transportation is the responsibility of the teacher, but liability in case of accident usually lies with the driver of the vehicle. Plan activities during travel, including stops on the way at points of interest. The time in a bus or car can be used to prepare students for the experiences they are about to have.

B. Executing the Plan
   1. Follow your written plan; try to avoid major unplanned activities.
   2. Keep chaperones informed and involved in the program. They should be particularly aware of their roles in all activities.
   3. Follow emergency procedures in case of accident. If an accident occurs, avoid unplanned communication with the press; let school officials handle this sensitive area.
   4. Keep students under control at all times. The legal definition of control varies with students age. Elementary students must be under voice control of the teacher or chaperone at all times.
   5. Be aware of student's needs; do not get so involved in activities that you lose touch with the group.
   6. Parents and students should be informed in advance that behavior that could lead to injury will not be tolerated, and that students who misbehave will be sent home by the school administration. One way to approach this problem is with a written student contract that specifies what the teacher expects the student to achieve and how the student is to bahve on the trip.
   7. Free time should be structured and chaperoned. Avoid athletics or activities in the "high-risk" range of potential liability.

C. Post-Field-Trip Activities
   1. Use the field-trip activity as part of the classroom learning experience.
   2. Use the press on campus (school newspaper) and in the community to tell others about the field experience. Community support for such projects will encourage reluctant administrators.

Conclusion

Literature onschool liability and interviews with insurance company officials and other experts indicate that field trips have produced no more liability cases than activities carried out in the traditional calssroom. Therefore, the argument often used by school officials that field trips are too hazardous has little basis in fact.

However, the possibility of suit-producing accidents in the field is real and should never be taken lightly by field-trip leaders or administrators. All field-trip leaders should be aware of their legal responsibilities when developing a field-trip plan. Once developed, the paln should receive written approval from the appropriate authority and should be reviewed by participants and their guardians. Field-trip leaders should keep records of their plans, official approval, accident reports, adult witnesses, and professional liability insurance. Most of all, field-trip leaders must maintain control and common sense.

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-----written by Lundie Mauldin & Ray E. Ashton, Jr. (taken from: CURRENT/ The Journal of Marine Education. p.13-15.

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FRIENDS OF THE EARTH FORMS KANSAS CHAPTER

A Kansas branch of the Friends of the Earth (FOE), the national environmental lobbying organization, has announced its formation. At a statewide meeting held in Topeka, FOE members passed by-laws and elected officers. There are over 250 FOE members in Kansas.

The Kansas FOE branch intends to support the goals of the national FOE, which include promotion of clean energy, clean air, wildlands and wildlife, and a strong stance against nuclear power.

Dwight Corrin, president of the newly formed branch, said that he and fellow members will work to influence the state legislature in upcoming sessions. An environmental political action workshop is planned for November 21, 1981 at the Land Institute in Salina.

For more information contact: Neil Schanker, 1221 Thurston, Manhattan, KS 66502 913 - 532-5866.

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CROCODILES IN PERIL

Crocodiles were widespread in the Philippine Islands at the beginning of this century. They were found in most islands in the rivers, estuaries, mangroves, nipa and freshwater swamps and marshes. With habitat modifications resulting from agricultural improvements such as fish ponds, rice paddies, coconut and sugarcane plantations, and indiscriminate killing by man, either out of fear or to supply the leather industry with their valuable skin, the crocodile in the Philippines is practically extinct.

There are two species of crocodiles in the Philippines: the Philippine crocodile (Crocodylus mindorensis) and the Pacific estuarine crocodile (Crocodylus porosus). The Philippine crocodile, which is unique to the country, is found in the islands of Luzon, Mindoro, Busuanga, Negros, Samar, Mindanao and Jolo. It was recently found in the islands of Negros and Samar; it is likely to be found in other Visayan Islands and in Palawan. Historically, it lived in freshwater marshes, small lakes and ponds, and the tributaries of the large rivers. The Pacific estuarine crocodile was more widely distributed and probably occurred on most of the Philippine Islands in coastal areas, large lakes like Lake Naujan, and major rivers. It is now rare to encounter either species in any habitat.

The Philippine crocodile is a relatively small species known to reach a length of almost three meters. It is dark brown with a white belly and black crossbands on the body and tail. It has series of 4 to 6 large scales, called post-occipital scales, directly at the back of its head on the neck. (These are absent in the Pacific estuarine crocodile). It has less ventral or belly scale rows; if the transverse ventral scale rows between the pectoral collar and the cloaca are counted, there are between 22 to 26 transverse rows.

The Pacific estuarine crocodile is known to grow much larger, perhaps to a length of six meters. It has about 30 to 35 transverse ventral scale rows. It is normally lighter in color and the younger ones are often yellowish with dark crossbands or spots on the body and tail. Some have been reported as "maneaters;" but such cases are extremely rare. Few people can distinguish the two species and erroneously consider both as dangerous to livestock and people.

These crocodiles eat a variety of food. Young crocodiles subsist on insects, crustaceans, frogs, and other small animals. As they grow larger, they still eat these foods but are able to catch increasingly larger prey like snakes, lizards, land and pond turtles, small mammals and birds. Fish are a minor part of their diet and normally only sick or dead fish and some slow-moving fish species are eaten.

Crocodiles perform a variety of important functions in the aquatic ecosystems they inhabit. They are the largest inhabitants of the freshwater marshes and inhibit the encroachment of aquatic plants in the waterways by their constant movements. In areas with prolonged seasonal dry periods, they maintain residual water-

holes which serve as a restocking reservoir for smaller aquatic organisms which would otherwise perish. In estuaries and lakes, they enrich the nutrient content of the water by converting (defecating) terrestrial prey into water-born particles (feces) that are excellent food for invertebrate animals and fish.

The crocodiles in the Philippines are in immediate danger of extinction; there are no sanctuaries where they are immune from constant persecution either for their valuable skin or through misconceptions of the local people. For this reason, the Ministry of Natural Resources and international programs like the Smithsonian Institution/World Wildlife Fund Philippine Crocodile project, have initiated an intensive research and information drive to learn more about these crocodiles and eventually preserve them for the enjoyment and economic utilization of future generations of Filipinos.

-----Charles A. Ross/Smithsonian Institution/World Wildlife Fund Philippine Crocodile Project and Ceferino P. Datuin/Outdoor Recreation and Wildlife Research Division. (taken from: Canopy International, 7(2):7, February 1981).

* * * * * *

TWO TEAMS IN JUNGLE SEARCH FOR LIVING DINOSAURS

Two american scientific expeditions are racing to prove that the prehistoric brontosaurus is alive and well in the African jungle. The major expedition is being led by a Chicago professor of biology, Dr. Roy Mackal, who was in the Congo area a year ago gathering stories from natives on the existence of the dinosaur-like creature. He has since been preparing a return expedition to attempt a sighting or capture of the creature, in a dangerous unmapped area of the Congo.

In the meantime, a California electronics engineer who was planning to join Dr. Mackal, Herman Regusters, has pulled out of the project and mounted his own expedition. While Mackal and his party head 60 miles north of Brazzaville, the capital, by dugout canoes, Regusters will attempt to beat them into the area by landing on an unmapped lake by seaplane.

The brontosaurus was thought to have become extinct 60 million years ago. Native descriptions say the mystery creature is so big it frightens off crocodiles and hippopotamuses and, although a vegetarian, has been known to kill natives. It apparently lives in the waters of the vast shallow Likouala swamp and only emerges at dusk to eat.

"If it turns out to be a giant lizard then I am sure our pygmy guides will able to fashion some sort of cage out of bamboo and vines. And we will sweat blood and guts to get it out," he said. The group will be in the swamp and out of touch with civilization for about thirty days. "That is all we would be able to stand," Dr. Mackal said.

-----(taken from: Kansas City Star, August 18, 1981).

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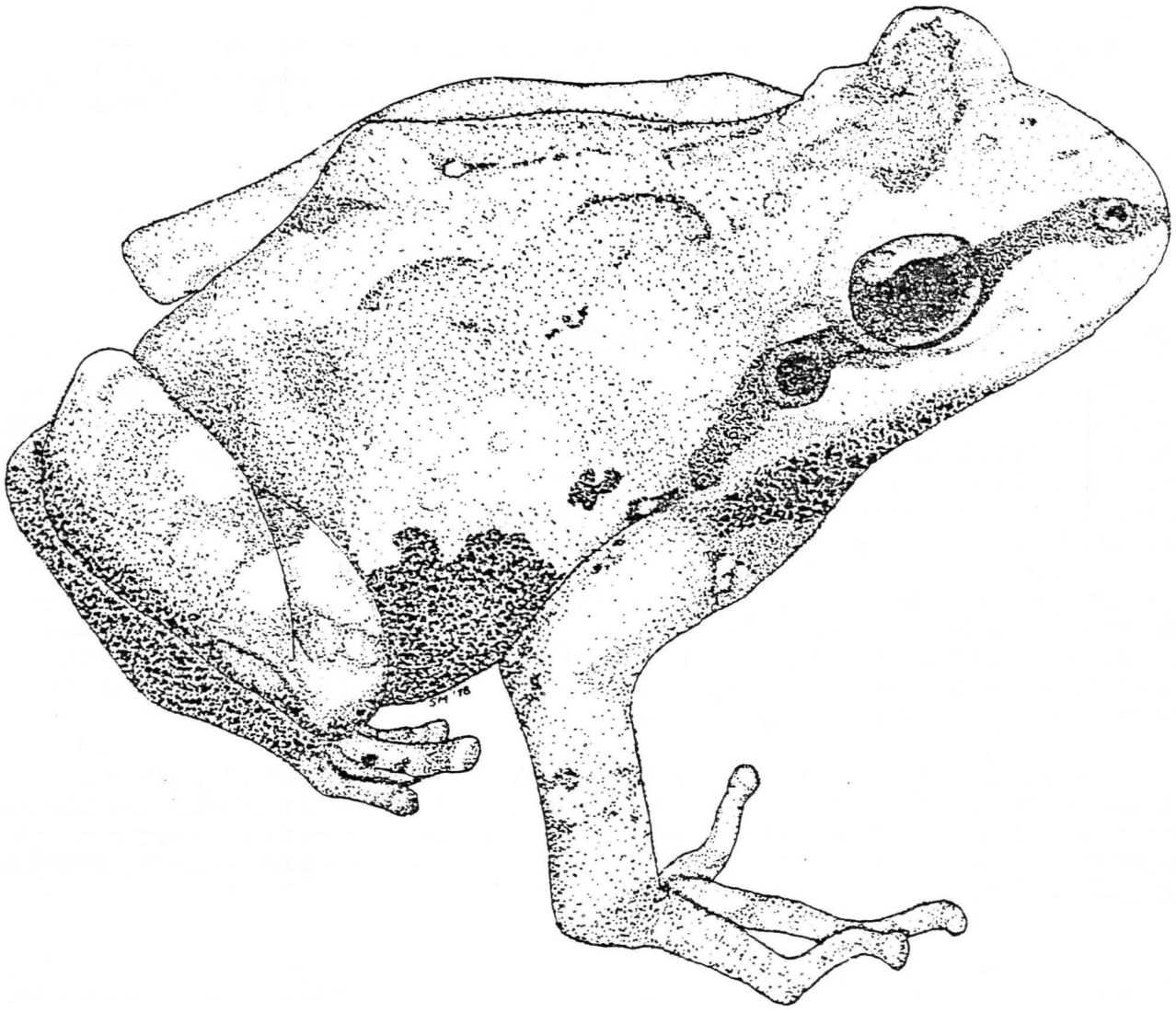

-----(drawing submitted by Steve Morey).

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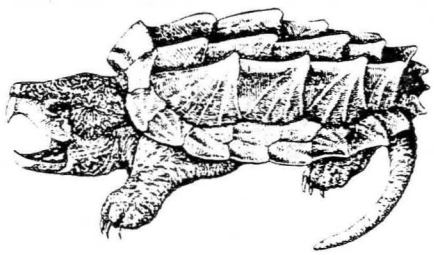

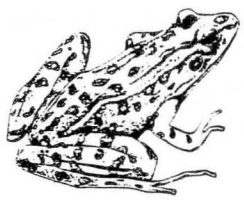

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