KANSAS HERPETOLOGICAL SOCIETY NEWSLETTER NO. 76

May 1989

ANNOUNCEMENTS

American Society of Ichthyologists & Herpetologists Meeting

The 69th annual meeting of the ASIH will be held in San Francisco, California, from 17-23 June 1989. The meeting will be on the campus of San Francisco State University, with a workshop on neotropical fishes at the California Academy of Sciences. Among the special symposia will be Amphibian Cytogenetics and Evolution, Biology of Amphibians and Reptiles of Seasonally Cold Climates, and Biology of *Anolis*. For further information, contact M. G. Bradbury, Department of Biology, San Francisco State University, 1600 Holloway Avenue, San Francisco, California 94132, telephone (415) 338-7680.

International Herpetological Symposium, Inc.

Phoenix, Arizona will be the site for the next International Herpetological Symposium, 20-24 June 1989. Lots of papers and workshops are planned for the five days, most relating to herp husbandry and breeding, but covering a variety of other topics as well. The registration fee of $125 includes entry to all functions. Send registration or requests for more information to Michael J. Uricheck, Department of Chemistry, Western Connecticut State University, Danbury, Connecticut 06810. Room registration must be made directly through the Holiday Inn, phone (602) 273-7778.

Earthwatch Expeditions

Want to spend your vacation making a meaningful contribution to a scientific study of reptiles? Once again this year, the Earthwatch organization has several opportunities:

Saving the Leatherback Turtle, Sandy Point, St. Croix, U.S. Virgin Islands. Eight teams from early April to early July, $1330. Night patrols to locate, measure, tag and examine nesting females, relocate erosion-threatened nests to safer areas, protect hatchlings from predators.

Turtles of Quintana Roo, Yucatan, Mexico. Five teams from mid-June to mid-August, $1295. Night patrols on two nesting beaches surrounded by dense tropical forests, looking fro green, loggerhead, hawksbill, leatherback and Kemp's Ridley turtles. Measuring, tagging, blood samples, assisting hatchlings.

Endangered Caribbean Turtles, Culebra National Wildlife Refuge, Puerto Rico. Six teams from late April to early July, $1045. Beach patrols for leatherbacks, similar to description above, but more concentration on nesting behavior.

Mediterranean Turtles, North Coast, Cyprus. Six teams, June through late August, $1290. Day and night beach patrols to locate turtles nesting on the beaches, measurements, etc. The main thrust here is to identify beaches used by the turtles so the government can protect them from development.

For more information on these and other Earthwatch trips, contact Earthwatch, 6BO Mount Auburn street, Box 403, Watertown, Massachusetts 02272

Hot Threatened Turtle Gets Away with Rikki Tikki Tavi

On 18 March, 1989, a live Blanding's Turtle (and a mounted mongoose, of all things) was stolen from the New England Science Center in Worchester, Massachusetts. The turtle is five

years old, measures four inches long, and has orange and yellow flecks on a brownish shell. Its most distinguishing feature is a bright yellow chin and throat. This is a state listed Threatened turtle. This particular specimen must have a special diet and environmental requirements to survive. If you have any information on this turtle (or the stuffed mongoose) please call (508) 791-9211.

Agriculture and Wildlife

A series of programs ranging from six to 29 minutes each has been produced by wildlife agencies in nine Great Plains states to show how agricultural production and wildlife can fit together so both benefit. Tape #1 covers the conservation reserve program, principles of wildlife management, field borders and odd areas, winter food plots, and grazing management—a new look at an old idea. Tape #2 has stock ponds and waterfowl, saving soil moisture and creating nesting habitat by undercutting, streamside woodlands, saving grain and wildlife through root pruning, and wetlands restoration for the good of agriculture and wildlife. Tape #3 is concerned with supplementing farm and ranch income with wildlife.

These are available at $25 per tape (price includes postage and handling). There is also a handbook, *Increasing Wildlife on Farms and Ranches* (600 pages for $27). Both tapes and handbook are available from: Extension Communications, McCain, Kansas State University, Manhattan, Kansas 66506.

Inventory Time

The infamous "Inventory, Longevity, Breeding Notes—Reptiles & Amphibians in Captivity, Current January 1, 1988," compiled by Frank L. Slavens, is now available in 402 pages for $32.50 (hardbound) or $25.00 (softbound) plus $3.00 postage. This edition lists 462 genera, 1357 species and is compiled from 148 public collections and 252 private collections, mostly in the U.S. Order from Frank L. Slavens, P.O. Box 30744, Seattle, Washington 98103.

New Book on the Serpents of Colombia

A new book on Colombian snakes has been published by Koeltz Scientific Books. *Ofidios de Colombia* [Snakes of Colombia], by Carlos Perez-Santos and Ana G. Moreno has 87 color photographs, 121 black and white figures, and 28 distribution maps. It contains 517 pages, is clothbound, and is in Spanish with Spanish/English identification keys. Price is approximately US $89 from Koeltz Scientific Books, P.O. Box 1360, D-6240 Koenigstein-Ts, West Germany.

Two New Publications from the Smithsonian

Continuing its tradition of useful publications, the Smithsonian Herpetological Information Service released two numbers in 1988. The first was No. 74, "A Nomenclatural History of Tortoises (Family Testudinidae)," by Charles R. Crumly. He begins with the 11 turtle names found in the 19th edition of Linnaeus' Systema Naturae (1758), which includes a name first used in 1751, and works through the confusing array of names proposed up to the present day.

No. 75 is "Snakes of Burma—Checklist of Reported Species & Bibliography," by Herndon G. Dowling and Janaan V. Jenner. In addition to what you would expect from the title, the reader is also treated to Dowling's latest version of his scheme of the "Families and Higher Taxa of Serpentes" in an addenda of three pages.

For information on the availability of these publications and others from the Smithsonian Herpetological Information Service, write to Dr. George Zug, Division of Amphibians and Reptiles, National Museum of Natural History, Smithsonian Institution, Washington, D.C. 20560. Include a self-addressed mailing label.

Special Pre-Publication Offer for New Book on Venomous Latin American Snakes

The Herpetologists' League (HL), in conjunction with Cornell University Press, is offering the book "Venomous Reptiles of Latin America" by Jonathan A. Campbell and William W. Lamar at a considerable pre-publication discount price of $39.50 (until 31 May 1989; $45.00 after 1 June 1989). The publisher's list price is $59.50. This magnificent volume provides the first comprehensive treatment of all venomous reptiles in Latin America (147 species). It contains 504 color photographs, 62 line drawings, 115 maps (6 color vegetation maps) and 440 pages. HL would like to offer this book to everyone at this low price, but we can offer it only to members of The Herpetologists' League. If you are a member or would like to join HL., and are interested in purchasing this book, please write to Ellen J. Censky, Section of Amphibians and Reptiles, Carnegie Museum of Natural History, 4400 Forbes Avenue, Pittsburgh, Pennsylvania 15213 USA.

U.S. Fish and Wildlife Service Publications

The following publications are offered free while supplies last by the U.S. Fish and Wildlife Service:

The brown tree Snake, Boiga irregularis: a threat to Pacific Islands. Biological Report 88(31), 36 pp.

[Write to U.S. Fish & Wildlife Service, National Ecology Research Center, Information Management Services, 2627 Redwing Road, Creekside One, Fort Collins, Colorado 80526].

Life history and environmental requirements of loggerhead turtles. Biological Report 88(23), 34 pp.

Synopsis of the biological data on the loggerhead sea turtle, Caretta caretta. Biological Report 88(14), 110 pp.

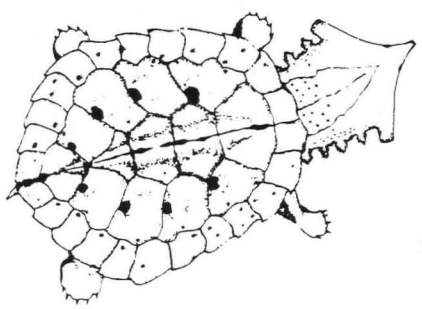
[Write to U.S. Fish & Wildlife Service, Publications Unit, Matomic Building, Room 148, Washington, D. C. 20240].

Milk Snake Madness

The Milwaukee Public Museum has just published the second, revised edition of *Systematics and Natural History of the American Milk Snake, Lampropeltis triangulum*, by Kenneth L. Williams. It is a large-format paperback, 192 pages, with 25 subspecies illustrated in color, seven by KHS members Suzanne L. and Joseph T. Collins. It contains keys to identification, descriptions of two new subspecies, and updated maps. Available for $34.95 plus $2.50 shipping from: Publications Section—Order Dept., Milwaukee Public Museum, 800 W. Wells Street, Milwaukee, Wisconsin 53233.

New Field Guide

A new field guide covering the nearly 400 species of reptiles found in the countries of southern Africa (South Africa, Zimbabwe, Mozambique, Nambia, Botswana, Lesotho, and Swaziland) has been published. Color photos, identifications, notes on biology and breeding, and distribution maps are included [see the BOOK REVIEW section of this newsletter]. Available for $29.95 form Ralph Curtis Publishing, Inc., P.O. Box 183, Sanibel Island, Florida 33957.

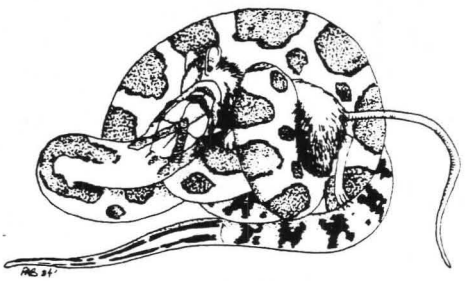


Facts on Turtles

Continuing their excellent series of books on herps, Facts On File publishers has just released "Turtles and Tortoises of the World" by David Alderton. The book has 191 pages, color and black & white photos and line drawings. Price is $24.95 (hardbound), from Facts on File, 460 Park Avenue South, New York, New York 10016.

KU Museum of Natural History Live Exhibit Needs Snakes

The popular live snake exhibit at the Museum of Natural History in Lawrence needs your help. We are low on snakes and need adults of the following:



Yellowbelly Racer (3 each)
Western Coachwhip (2 each)
Western Hognose Snake (2 each)
Prairie Kingsnake (2 each)
Kansas Glossy Snake (2 each)
Checkered Garter Snake (2 each)
Western Plains Garter Snake (1 each)
Osage Copperhead (2 each)
Timber Rattlesnake (1 each)

If, in your travels across the Great Plains and through the eastern forests, you catch some adults of these critters and can spare them, please call me at the Animal Care Unit at (913) 864-5587. Your help will be greatly appreciated.

— Jeffrey Whipple
KHS Past President

KHS BUSINESS

Artwork for KHS Use Only

Due to the appearance of several drawings originally donated to the Kansas Herpetological Society for newsletter illustrations in private works, publications, post cards, etc., I find it necessary to state the following. Drawings by Marty Capron, donated to the Society for illustrations, are intended solely for the use of the non-profit Kansas Herpetological Society and they are not intended for use in/or on any item or publication to be marketed for the profit of any other organization, group or individual. Any such use is expressly forbidden without the prior, written consent of the artist.

— Marty Capron
Rt. 1, Box 59
Oxford, Kansas 67119
21 March 1989

KHS Executive Council Business Meeting in Wichita

A KHS Executive Council meeting was held 15 January 1989 at the Sedgwick County Zoo. Council members present (and constituting a quorum) were President Jim Marlett, Past President Jeff Whipple, and President elect Nancy Schwarting. Other KHS members present

were Joe Collins, Suzanne Collins, Eric Runquist, and Ken Brunson. The Council members transacted the following business:

1) 1990 KHS dues were increased from $6.00 per year to $8.00 per year for Regular US Members. Non-US Regular Members will now pay $10.00 per year, and Contributing Members will continue to pay $15.00.
2) Candidates for KHS Distingushed Life Membership were discussed. No new members were approved.
3) KHS editors were encouraged to print an updated KHS constitution in a future Newsletter.
4) KHS editors were encouraged to print a KHS membership list in an upcoming Newsletter.
5) A KHS Treasurer's Report for 1989 will appear in the first 1990 Newsletter, and will appear annually thereafter.
6) Members of the council discussed instituting an Annual KHS Reptile Census. It was proposed that an initial census be conducted as an experiment during our 1989 KHS field trip to the Council Grove area.

Respectfully submitted

— Jeff Whipple
KHS Past President

KNOW ZOOS IS GOOD ZOOS

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

Brookfield Zoo Reports Significant Reptile Hatching

Two Aurafuran file snakes (*Acrochordus arafura*) were born in the Reptile House at Chicago's Brookfield Zoo on 8 December 1988. This is believed to be the first birth of this species in a U.S. zoo and the first second generation of file snakes ever reproduced in captivity. The birth is remarkable in that both adults are female and there has been no known contact with a male since the young were born to a wild-caught female at the Melbourne Zoo, Australia, in March 1983. Both young are accepting food and appear to be adjusting to their captive environment. The likelihood of parthenogenesis is being investigated.

Species Survival Program Reports

Aruba Island rattlesnake — The last year has been an exciting period for the Aruba Island Rattlesnake (*Crotalus unicolor*) SSP Program. The goals of the program include: initiation of a 1-year field research project on Aruba to ascertain the current status of *C. unicolor* in the wild, the finding of additional founders needed for the program, and the initiation of a study to test a killed virus vaccine for reptilian paramyxovirus disease.

On 12 October 1988, the field research project on Aruba commenced. This project included both mark-and-recapture techniques and radiotelemetry tracking. The Propagation Group voted to utilize the services of Matthew Goode as field research biologist. During the first 6 weeks on Aruba, Matt did preliminary work: surveyed possible habitat for *C. unicolor*,

researched reported sightings, searched for rattlesnakes, and introduced himself to local Arubans who have an interest in the species.

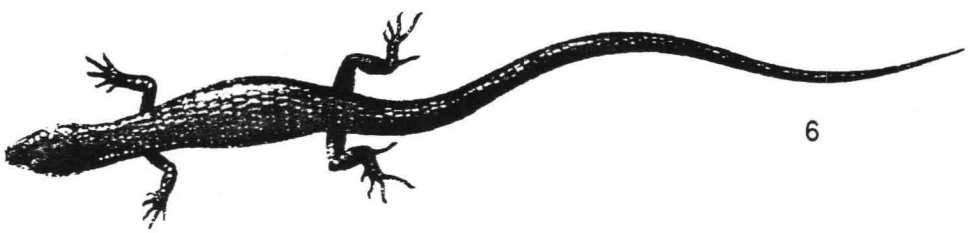
The second phase of the project was started in December 1988 when Species Coordinator Andy Odum and Joseph Flanagan, DVM, (SSP veterinary Advisor) went to Aruba to implant radio transmitters in 2 specimens. These transmitters will permit observation of the activity patterns, temperature preferences, and other habits of free-ranging *C. unicolor*. Two Aruban veterinarian, Drs. T. Wools and E. van der Hoeven, provided facilities and assisted Dr. Flanagan with the procedure. A Dutch veterinarian, Dr. M. Kik, assisted as anesthetist. The implantation operations were successful, but a malfunction of one of the transmitters necessitated its removal the following day. After approximately a week of convalescence, the single female snake was found copulating with an unmarked male several days after release. The transmitter that was implanted in this female has temperature telemetry. If she becomes gravid, it will be possible to monitor the entire gestation of the young (including incubation temperatures). This is an especially exciting prospect.

While on Aruba, blood was collected from approximately 20 *C. unicolor*. When permits are obtained, this blood will be imported to the United States for electrophoretic studies and paramyxovirus testing. These tests will help estimate the genetic variation of this restricted insular population and determine whether paramyxovirus is found on Aruba.

In August 1988, a joint SSP Master plan meeting for the Dumeril's Ground Boa and Aruba Island Rattlesnake SSPs was held in Houston. Master plan strategy was formulated for *C. unicolor* at this meeting. Analysis showed that the stated goal of maintaining 90% of the average heterozygosity for a 200-year program duration could not be realized without additional founders. Houston is in the process of obtaining permits to import 10 (5.5) additional specimens. The newly arrived specimens will be quarantined at the Houston Zoo and later distributed to other institutions for breeding. To minimize the impact on the wild population, it was decided to attempt to obtain displaced juvenile specimens (i.e., those animals found by local Arubans near homes or other unsuitable habitat) in the first- or second-year age class. Several specimens are already available on Aruba for exportation. Until these specimens arrive, the captive population will be maintained at the current level of approximately 110 animals. This will be expanded to the 250-specimen carrying capacity soon after new founders are imported. Some additional captive space will be required to meet this carrying capacity, and participation by additional institutions will be needed.

Loss of specimens due to reptilian paramyxovirus has been a chronic problem for the *C. unicolor* captive population. The last documented animals lost to this disease were at Audubon Park Zoo, where all the *C. unicolor*, as well as several other species, died shortly after a paramyxovirus outbreak. The Houston Zoo, working with Drs. Elliot Jacobson and Jack Gaskin of the University of Florida at Gainesville, is in the process of testing a killed paramyxovirus vaccine on a study group of western diamondback rattlesnakes (*Crotalus atrox*). This project was funded by a grant from the New York Zoological Society Nixon-Griffis Fund for Zoological Research. Preliminary results show some immune response to this vaccine by study-group animals. Further work, including a modified live vaccine study are being planned for the future. Kevin Bowler of Audubon Park Zoo has been coordinating other work with the University of Florida on the parmyxovirus problem. This work is being funded by a grant from John McIlhenny, nephew of the famous Tabasco Sauce producer and alligator naturalist, McIlhenny. An extensive survey of paramyxovirus exposure of reptiles throughout the United States has been undertaken. Work to develop a fluorescent antibody test for this disease is also scheduled to start in the spring. The resolution of the paramyxovirus disease problem is needed to assure the success of this long-term captive breeding program, and is a prerequisite of any release program for this species into the wild.

Dumeril's Ground Boa — The North American SSP population of this endangered boa currently numbers 95.101 distributed over 32 cooperating institutions. Breeding



recommendations suggested in 1987-88 yielded 9.14 offspring, all of which were retained for the program. These breedings were designated to equalize relative founder representations.

The first 1988 born brood was produced at the Knoxville Zoo, and these 6.3 young represented the initial second-generation contribution to the program's circular pair-mating scheme. The second 1988 brood was born at New York Zoological Park with 3.11 living progeny produced. This was an important breeding, as it boosted the founder contributions of founder male #44 to parity and near parity for secondary found female #28 (now deceased). This female was the progeny of a wild breeding of founder female #13. Hence, female #28 has a genetic contribution from a wild male not in the SSP population. The last 1988 born brood was produced at the Memphis Zoo with 3.2 living progeny born. The founder female #17 that gave birth to this brood has produced 100 young since 1979. Although this breeding was not needed by the program, it provided additional data on the fecundity and age-specific fertility of female boas. Additionally, broods were produced in late 1987 at the San Antonio Zoo and the Eugene Bessette facility (private participant). As these progeny were not needed by the program, they were subsequently surplused.

KHS NEWS OF THE WORLD FOR YOU

Rattlesnake Bite Fatal

Heavener (Oklahoma) — A man who caught snakes as a hobby has died of a rattlesnake bite, authorities and his family said Friday.

Larry Roop, 40, a Heavener railroad worker, died Thursday in a Poteau hospital after being bitten on the hand Wednesday night, apparently as he was handling one of three snakes he kept in a cage in his home.

"He'd been bit three times before, but he always went to the hospital and always walked away from it," said a brother, Gary Roop. "But I imagine this time he just got more of it (Poison) than he thought."

Bob Jenni, an Oklahoma naturalist best known for his work in outdoors research, and who conducts outdoor safety clinics, said he believed it had been more than 30 years since the last death in Oklahoma related to a snake bite.

Gary Roop said his brother normally combed the Ouachita Mountains for snakes and kept them for a time, never wanting to harm them.

"It was normal for him to feel a snake out and see if it was all right and everything. He'd been known to, if a snake looked sick or wasn't eating right or something, pick it up and try to feed it - get an egg down it or something," he said.

A state health department spokesman said he didn't know when the last snakebite death occurred in Oklahoma.

— Saturday Oklahoman & Times, 15 April 1989
(Submitted by Suzanne L. Collins, Lawrence)

Lousiana Looks to Gators After Oil Boom Goes Bust

New Orleans (AP) - Call it toothy gold, a get-rich quick plan for an area devastated by the crash of the oil market.

Across Louisiana's marshes, once flush with profits from black gold, small patches of land increasingly are being turned into alligator farms, with investors hoping to quintuple their investments in short order.

"Year before last, there were just under 9,000 farm-raised gators sold" by 37 farms, said Dave Taylor, alligator research coordinator for Louisiana's Department of Wildlife and

Fisheries. "That number is going to reach 60,000 quickly and could be up to 100,000, certainly, within five years."

That's in addition to the 24,000 wild alligators trapped each fall in carefully supervised hunts.

Spurred by prices of $37 a linear foot for hides, 21 new farms have opened in the past two years, and "We expect them to produce 18,000 gators," Taylor said. The waiting list for permits for new farms is about 100.

Jerry Jones Jr., 28, went into business two years ago near Sweetlake and expects to put 12,000 hides a year on the market. His farm is state-of-the-art: automated cleaning, water-source heat pumps, carefully supervised diets.

The result is quicker growth at less cost. "We have some are 5-6 feet long in a year and six months. We have 8-month-old gators that are 26-30 inches."

Skins of wild alligators average seven feet in length, and are used for luggage. Farm-raised gators are skinned at two years old and about four feet long. Their hides are used for shoes, purses, belts and other smaller high-fashion accoutrements requiring smaller patterns on the hides.

For about $30,000 a potential farmer can put up a couple windowless cinder-block buildings on concrete slabs and be ready to raise 1,000 gators a year. It would take another $25,000 to $30,000 to operate until the gators grew enough to sell. At current prices, 1,000 four-foot hides would bring $148,000.

"The minimum requirements are 1 square foot per alligator up to two feet in length and 2 square feet up to four feet in length," Taylor said. Buildings must be able to hold a few inches of water and be kept about 89 degrees.

The first thing is to gather alligator eggs from wild nests, paying landowners for the eggs and committing 17 percent of the hatch for return to the wild at 4 feet long. That's a carefully researched percentage designed for zero growth in the population of 1.5 million wild alligators—reached after the alligator was taken off the endangered species list in the mid-1970's.

The wild nests aren't easy to find, and female alligators guard their eggs—about the only time in their lives they show maternal instincts.

No task for the timid, Taylor agreed. "But everybody's got to learn some time or another, if they want to get into farming.

"Obviously, what would be best, for a guy's first involvement, would be to hire someone with a little experience in locating nests from the air. That's the only way to go: rent a helicopter and go find them and pick them up."

The success of farming ventures will almost certainly drive prices down, and there are risks any time a market depends on fashion or something volatile, he said.

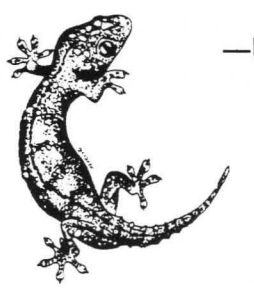
— Lawrence Journal-World, 5 March 1989
(Submitted by Irving Street, Sibleyville)

Frogs Attempt Escape

Eight frogs that were to be sent into space last week escaped before the rocket launch, delaying the experiment, the Swedish national news agency TT reported yesterday.

The female frogs climbed out of their aquarium and eluded searchers for several days in a building at the Esrange rocket center in the northern city of Kiruna, TT said.

Researcher Ulf Hogman told TT the frogs were part of a biological project to study mating and various other functions.



—University Daily Kansan, 12 April 1989
(Submitted by Birnam Wood)

Zoologists Baffled by Decline of Frogs — Native Species Fading in West

Corvallis — Frogs are in trouble throughout the West, including Oregon, but no one knows exactly why.

A number of frog species have been declining in population in the region, with two species — the spotted frog and red-legged frog — having virtually disappeared from the Willamette Valley, according to zoologists at Oregon State University.

"We don't know the exact reason for the phenomenon," said Andrew Blaustein, OSU associate professor of zoology. "But there definitely is a problem out there, and we need to find out what's causing it."

The amphibians are very sensitive to ecological change, Blaustein said, and "it could be that there is something environmentally wrong which is affecting them.

"It could be an indication of bigger things to come."

Blaustein, who has studied frogs since 1979, said various species have been disappearing or declining in an area ranging from the Pacific Northwest to Southern California and east to Colorado.

Mark Jennings, a fish biologist and a research associate with the California Academy of Sciences in Los Banos, said the decrease in frog populations could lead to additional problems. "Frogs are important in the food chain of many other organisms. We could lose animals farther up the food chain."

Several theories have been suggested by scientists as to why the frogs are becoming more scarce:

— Acid rain.
— Pesticides and/or herbicides.
— A growing population of predatory bullfrogs.
— The introduction of predatory fish species not native to the West.
— Habitat destruction by encroaching urban areas and by dam construction.
— A natural fluctuation in frog populations.

Blaustein and Richard O'Hara, OSU research associate, said most of the evidence concerning the decline has been by casual observation rather than from major scientific studies.

"But for the past several years researchers have noticed in their field work that the phenomenon was taking place," Blaustein said.

O'Hara has identified some localized extinctions of the Cascades frog near Sisters, while a number of researchers have observed declining populations of several frog species in California.

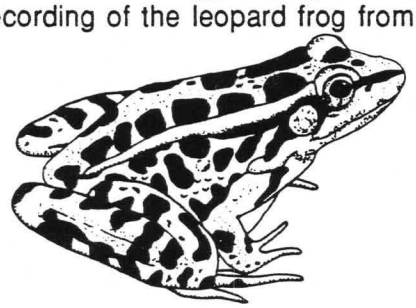
Jennings said he had noticed in his own field work in California and Arizona that frog populations had decreased dramatically.

"Researchers in several Western states have found when they return to areas they studied in the '70s that frog species they encountered then no longer are around," Jennings said.

Robert Storm, professor emeritus of zoology at OSU, said a graduate thesis done in the 1930s reported the Willamette Valley's spotted frog as "abundant," but they were already scarce when he studied the area in the mid-1940s. Now, they are virtually gone from that region.

"This is an issue that crept up on us," Storm said. "It eventually dawned on us that we have a problem, that the declines are very widespread."

Jennings cited several frog species that are threatened in California and Arizona, including the foothill yellow-legged frog, "which has disappeared from Southern California and from the foothills of the Sierra Nevada. The California red-legged frog has disappeared from a lot of sites. And there has been no recent recording of the leopard frog from southeast California and along the Colorado River."



Blaustein and Jennings said it was difficult to pinpoint an exact cause for the phenomenon, because conditions vary according to location. There may be more than one reason to the problem, Jennings said. "There is no pat answer."

Acid rain could be a reason for the decline, Blaustein said, but that theory is flawed because the problem is not prevalent in the West except in some pockets near major urban areas.

Jennings said the introduction of predatory, non-native fish—such as trout, bass, bluegill and green sunfish—to frog habitat could be a major factor. "These types of fish go into vegetation where tadpoles are."

The introduction of bullfrogs to the region also may be contributing to the decline, said Blaustein. "The bullfrog is not native to most of Western North America, and there's no doubt it can have an impact on other frog species when they are found in the same territory."

Recently, a mass recall was launched of pet Missouri bullfrogs that had been shipped to Great Britain because of fears they would eliminate frog species there.

However, bullfrogs are not present in all of the areas where frogs are declining, Blaustein said, and apparently are not the only answer to the problem.

Jennings and Blaustein said the population declines could be some type of normal fluctuation, but they agreed that more research is needed to determine if that is a factor.

"Frogs are absolutely important in controlling insect populations," Blaustein said. "If you think of them all gone, there's going to be a large increase in insects."

The zoologist said toads, a close relative of frogs, don't seem to be affected. "Frogs are more tied to water than toads, but we don't know if an explanation as to the decline is tied in with that," he said.

Blaustein and an OSU graduate student, Deanna Olson, are studying the population dynamics of frog species which might lend additional insight into the problem.

But the OSU zoologists believe the problem deserves more attention on the federal level. Blaustein hopes the U.S. Environmental Protection Agency will consider funding for research into the problem.

"This is more than just an Oregon problem," he said, "and it could be one that isn't just going to be confined to frogs. It could be that other animals are or will be affected by what's happening."

Jennings agreed that more study is needed. "A lot more research needs to be done to find out what the problem is and find solutions that will enable us to see a turnaround for these critters."

—The Oregonian, July 1988
(Submitted by Jeffrey Whipple, Lawrence)

Salamanders Get Help in Crossing Busy Roadway

Amherst, Mass. (AP) — About 40 rain-soaked humans turned out to escort the first of the year's spotted salamanders across a road to their breeding ponds in what has become a rite of spring in this college town.

Traffic was halted at 8 p.m. Thursday night on Henry Street, just in time for an eight-inch-long male, navy blue with yellow polka dots, to ease across the rain-slick pavement.

It took the salamander, watched by adoring human assistants, about 10 minutes to cross the road.

Fourteen more of the spectral creatures appeared during the watch, but nine crept back into their winter burrows because it was too cold, Scott Jackson, a graduate student at the University of Massachusetts, said Friday. Temperatures hovered in the high 30s.

The other five used salamander-sized tunnels installed under the road last spring to help keep them from being squashed by traffic, he said.

The salamanders that emerged Thursday were tagged with reflective tape to see how many used the special tunnels.

Jackson said volunteers would be out again on the next rainy night, armed with their reflective tape.

The tape, which can be seen in the low light from red-filtered flashlights, is the most benign way researchers have found to mark the salamanders, Jackson said. "All you need is a tiny drop of glue and some forceps and you just slap it on,' he said. "They don't even break stride."

Since the salamanders normally shed their skin within a week or so after emerging from their burrows, they are not exposed long to the markings, Jackson said.

Tulsa World, 1 April 1989
(Submitted by Jack Shumard, Wichita)

Serum Flown from Iran to Save U. S. Snake Researcher

Salt Lake City — Physicians treating a snake-venom researcher, whose need for rare medicine prompted White House intervention, were awaiting a shipment of serum from Iran today to counteract a deadly viper bite.

In an unusual effort initiated by Stephen Studdert, special assistant to President Bush, antivenins effective against the bite of a Pakistani pit viper were located in Iran, England and the Soviet Union, and U.S. Customs rules were waived to place the shipments quickly on flights to the United States.

The antivenins were sought for William E. Haast, 78, who was in serious but stable condition at the University of Utah Health Sciences Center today after being bitten in the left hand by the viper earlier in the week.

The British shipment from the English National Poison Unit in London arrived Friday night. But doctors did not administer it to Haast, deciding instead to wait for the more effective Iranian serum, said nursing supervisor Rick Taylor.

"The one from Tehran is the best one, I understand, because of its properties," Taylor said. "We will not give the London one unless Mr. Haast's condition deteriorates."

Haast was being given plasma intermittently to replace coagulating elements of his blood. The snake's venom prohibits blood from coagulating and victims often bleed to death.

Haast, director of the Miami Serpentarium Laboratories at the university's Research Park, has been bitten 148 times by snakes and is immune to the venom of dozens of reptiles. But he had no immunity to withstand the viper's bite and checked himself into the hospital Wednesday.

The Pakistani pit viper, or saw-scaled viper, is one of 1,000 exotic, poisonous snakes Haast keeps at the lab, where their venom is extracted for sale to universities and health organizations for use in research and the manufacture of antivenins.

Haast had been treated earlier with antivenins from California's San Diego Zoo, including one shipment obtained through an unusual airport relay involving zoo personnel, a helicopter and a departing jetliner.

Studdert of Salt Lake City said he became involved Thursday night when he received a call from an associate of Haast's. The associate, who had read accounts of a speech Studdert gave in Utah describing Bush's "kinder, gentler" approach to human problems, said the serum could only be located in the Soviet Union and Iran and asked for the Bush administration's help.

Studdert said he immediately set up conference calls with people around the United States and in other countries after doctors and specialists advised the White House that the serums Haast needed were unavailable in the United States.

Using an American interpreter who speaks Farsi, Studdert put Haast's representatives in telephone contact with serum specialists in Iran.

Two different serums were needed, he said, one for young pit vipers and another for older snakes of the same breed.

Vials of the Iranian serum were due to arrive in Utah this afternoon.

The serum found at the London institute was the antivenin used for younger vipers.

Another supply of the serum was obtained through the Tashkent Institute of Vaccines in the Soviet Union. That serum was being flown to Frankfurt for eventual shipment to the United States.

— Lawrence Journal-World, 4 March 1989
(Submitted by Birnam Wood, Lawrence)

Wriggling Reptiles Captivate Classrooms

Wide-eyed school children let out squeals of apprehension and awe as Wichita Branch 201 member Jack L. Shumard firmly grasps a squirming seven-and-a-half-foot boa constrictor. One by one, the youngsters file past, timidly reaching out their hands to touch the giant reptile's smooth, iridescent skin.

It is a scene this intrepid letter carrier has repeated on his days off for the past five years. Shumard, a member of the Kansas Herpetological Society, teaches children to identify and appreciate snakes—and to not fear them.

"Knowing what you have in your hand is important," he stresses as he casually lifts a red-sided garter snake in the air, teases it and allows the snake to clamp its jaws onto his hand. The children gasp.

"This particular snake's bite is not poisonous and does not hurt, but neither does it make a good pet," the letter carrier tells the class.

Before Shumard finishes his presentation, the children will have learned a great deal about snakes, including which to avoid, what to do if bitten, where snakes are found and what they eat.

"There are only four venomous snakes in Kansas," he tells them, "three kinds of rattlesnakes and one copperhead."

If bitten, watch for swelling which indicates that the snake is probably venomous, Shumard says.

"Take off rings and watches, remain calm to avoid shock and get to a doctor."

Debunking the popular belief that a victim or rescuer should cut between the snake's two fang marks and suck out the venom, he warns, "If you have a cavity or a sore in your mouth, that could give the poison a quicker path to your brain."

Showing slides of Kansas landscapes, Shumard points out likely hiding places for snakes: bushes, rocks, ledges and swamps.

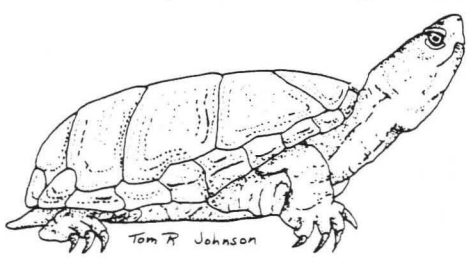
"Since the serpent tricked Adam and Eve in the Bible, snakes have had a reputation as villians. But they are often friends to farmers, protecting their grain from rodents," the Kansas carrier informs the class.

He produces several more snakes from the soft pillowcases in which he transports them so they can breathe: a beautiful Central Plains milk snake, a king snake, a black rat snake.

Shumard, 48, began giving presentations on reptiles in Wichita area schools at the request of his wife, Patricia, a veteran teacher. With his easy manner he was a hit with her students, and so offered his services to other schools, churches and scout groups. He performs his routine for about 40 student audiences each year.

Besides snakes, he exhibits lizards, turtles and other reptiles. His basement is a virtual zoo containing 20 snakes and lizards, 30 turtles, 250 mice and 75 rats. His menagerie includes a Mexican iguana and a 14-inch snapping turtle that can down a mouse in one gulp.

Shumard is Wichita's membership recruiter for the Kansas Herpetological Society. The society has about 300 members, dedicated to learning and educating the public about reptiles and amphibians.



"Reptiles are fascinating creatures," he assures his audiences. "All you have to do is get to know them to appreciate them."

— Postal Record, March 1989
(Submitted by Jack Shumard, Wichita)

RECENT LITERATURE OF INTEREST

REINERT, HOWARD K. AND ROBERT T. ZAPPALORTI. 1988. Timber Rattlesnakes (*Crotalus horridus*) of the Pine Barrens: Their Movement Patterns and Habitat Preference. Copeia 1988 (4):964-978.

By using radiotelemetry, the authors found that male timber rattlers had larger ranges than females. Gravid females did not range as far from the hibernacula as males. Males and non-gravid females spent more time in thickly forested areas, and gravid females preferred more open areas. The authors point out that this makes gravid females more vulnerable to human activities, which should be considered in the design of conservation and management strategies.

FRITTS, THOMAS H. 1988. The Brown Tree Snake, *Boiga irregularis*, A Threat to Pacific Islands. Fish & Wildlife Service Biological Report 88(31), 36 pp.

The brown tree snake, *Boiga irregularis*, is native to coastal Australia, Pacific New Guinea and some islands in NW Melanesia. It has been introduced to Guam, where it destroyed much of the native bird fauna. These snakes also eat domesticated poultry and eggs. The loss of so many insect-eating birds has led to insect control problems on the island. The fear now is that the snakes will spread to other islands, as stowaways in ships cargo. This paper describes the habits and ecology of the snake and proposes ways to control it's dispersal on other islands.

KRAUS, FRED AND JAMES W. PETRANKA. 1989. A New Sibling Species of *Ambystoma* from the Ohio River Drainage. Copeia 1989(1):94-110.

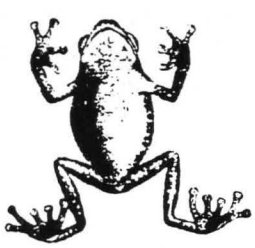
A new species of salamander, *Ambystoma barbouri*, is described in this paper, named for Dr. Roger W. Barbour "for his lifelong contributions to the natural history of Kentucky." It ranges from central Kentucky to SW Ohio and extreme SE Indiana. It is similar in appearance to *Ambystoma texanum* , and has been given the common name "Streamside Salamander."

MORA, JOSE MANUEL AND DOUGLAS C. ROBINSON. 1982. Discovery of a Blind Olive Ridley Turtle (*Lepidochelys olivacea*) Nesting at Playa Ostional, Costa Rica. Rev. Biol. Trop. 30(2):178-179.

A lot of theories have been proposed to explain homing in marine turtles, ranging from olfactory clues to socialization. In 1982, a completely blind female olive ridley was found nesting on a beach in Costa Rica. The authors feel this incident strengthens the case for olfactory clues in the location of nesting beaches.

FITCH, HENRY S. 1989. A Field Study of the Slender Glass Lizard, *Ophisaurus attenuatus*, in Northeastern Kansas. Occasional Papers of the Museum of Natural History, The University of Kansas 125:1-50.

KHS member Dr. Henry Fitch saw the first slender glass lizard at the KU Natural History Reservation in July of 1948. Over the years, as ecological succession has modified much of the habitat on the reservation, this formerly rare species has become more common. This paper reports on records of 2116 slender glass lizards seen by Fitch over a 35-year period. Information is provided on activity cycles, breeding, feeding, predation, and growth.



MCALLISTER, JAMES A. 1989. Subaqueous vertebrate footmarks from the Upper Dakota formation (Cretaceous) of Kansas, U.S.A. Occasional Papers of the Museum of Natural History, The University of Kansas 127:1-22.

Crocodile tracks in Kansas? You bet. This has always been a wild and wooly place. How about wild and scaly? This paper takes a new look at some old footprints, found in 1933 near Sylvan grove in Lincoln County. The footprints were made in soft mud, later covered by sand, so they were preserved "as a natural cast on the underside of the sandstone block." Some careful analysis has shown that the tracks were made underwater by a swimming animal. However, they probably were not made by crocodiles, but by ornithischian dinosaurs. This paper is illustrated with photos of the tracks and drawings of how they were probably made.

FEATURE ARTICLES

Threatened and Endangered — A Critique of the Kansas List

Marty Capron
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Oxford, Kansas 67119

I read the article on threatened and endangered species in Kansas in *KHS Newsletter* No. 75 (page 4) with a lot of interest and a little despair. But ever since the Kansas Department of Wildlife & Parks revised it's threatened and endangered species list a couple of years back many of us have had cause for despair, not to mention confusion and frustration.

True, many of the species on the list are in trouble. The Central Newt and Northern Spring Peeper have been shown to have limited ranges in Kansas along with very small, vulnerable habitats. Their breeding ponds and swamps have been destroyed and polluted and their fate, within our state, hangs in the balance. Northern Crawfish Frogs are going downhill, too, with man's constant interference with river bottom land, floodplains and water tables. The situation for the several species of Ozarkian-type amphibians in extreme southeastern Cherokee County is a little different. By a random act of human government, the line was drawn so that these species run out of habitat and natural range just barely within our state. They are not imminently threatened or endangered elsewhere in their range, despite their fragile toe-hold in Kansas. They are hardly the California Condors of herpetology. I'm not saying that they don't deserve their legal status — on the contrary I'm glad they have it. I'm just saying that many laymen might not understand their status if given a glimpse of the big picture.

The real trouble I have with the Kansas endangered and threatened list is in the reptile department. I have been on KHS field trips when turning a single rock exposed 17 New Mexico Blind Snakes, but their range and habitat is small and thus vulnerable to alteration and I can see the point in their protection. But Eastern Hognose Snakes? I'm told their reclassification as a threatened species was due to Dwight Platt's work in Harvey County. Whatever is going on in Harvey County with Eastern Hognose Snakes is apparently not going on elsewhere in the state-wide range of this species. This species has always been, and still remains, one of the most locally abundant large snake species in south-central Kansas. In the past 10 years I have observed or collected an average of 12 Eastern Hognose Snakes per season. This number exceeds that of Prairie Kingsnakes, Common Kingsnakes and, for a few years, even Bullsnakes!

In the sandy floodplains and adjacent farmland of Sumner, Harper, Barber, Comanche, Clark and Meade counties these interesting serpents are quite common. And though these are casual, random observations, and not the product of an intensive, long-term trap and release study, if

there has been a decline in their numbers you couldn't tell it! Eastern Hognose Snakes are common within the city limits of Oxford, Kansas, and seem to do well searching for toads in gardens and lawns. I have collected 33 Eastern Hognose Snakes within the city limits of Oxford since 1978. Interestingly, I have never had to identify a Hognose Snake killed by anyone. Evidently the bluff works well enough to scare most folks well out of hoe-handle reach! I have noticed dramatic declines in the numbers of Western Hognose Snakes and Bullsnakes locally but not Eastern Hognose Snakes. They appear to fluctuate from year to year with the supply of toads (last year was dry and bad for toads — I observed only 3 Eastern Hognose Snakes all summer). Also, since they eat only toads, Eastern Hognose Snakes are not in demand for the pet trade. The mouse-eating Western Hognose Snake is in great demand, however.

Then there are Alligator Snapping Turtles. Kelly Irwin and I conducted studies and searches for this species in Kansas for three years. One adult female was found in April of 1986, radio-tagged and released. An intensive trapping program throughout southeastern Kansas the following summer failed to produce a single specimen. So, apparently on the basis of that one live turtle, and despite recommendations to the contrary, the Alligator Snapper was moved from threatened to being a species in need of conservation! So how does a turtle with only 5 known specimens from the state (only two of which were found alive) get a lesser status than the Eastern Hognose Snake, for which there are hundreds of records and observations !?

In the long run, in the big picture if you will, everything in Kansas is threatened and endangered. We are wiping out habitat, poisoning the environment and carrying off individual animals at a rate that leaves no single species "safe." It is a question of time. The Common Snapping Turtle and the Prairie Ringneck Snake have more time than the Texas Longnose Snake, but the forces that make lists like those designating threatened and endangered status necessary are working against them all.

The classification of a species as threatened or endangered does nothing to insure it's survival. Sure, the Kansas Department of Wildlife and Parks can set aside a single cave and thus protect all the Cave Salamanders in the state. But how are they going to protect the Kansas Glossy Snake? Nobody, including the Kansas Department of Wildlife and Parks is going to tell a Kansas farmer he can't plow up a sandy pasture because there is a Glossy Snake in it. It's the same problem the Florida herp people have, trying to stop a developer from building a retirement community where a colony of Gopher Tortoises live. You can't do it. You can say it's a protected species and you can, as they did in the Gopher Tortoise case, develop an "Indian-reservation" type program where the resident tortoises are relocated to another spot. But what happens when a buddy of the governor wants to build his condo on that spot?

The Endangered and Threatened Species List in Kansas is just words. Like the Hognose Snake, it makes a lot of noise and puts on a good show but it has no bite. It cannot stand up to agricultural interest, or the petroleum industry, or any of the other big-money, economic interest that poison and alter the Kansas environment. It can scare a snake-hunter illegally collecting animals for the pet trade, perhaps, but it cannot even hope to halt the new highway bill that will consume thousands of acres of habitat and result in millions of more annual road-kills. Protect the habitat, the environment, and you will do more to save a species that putting names on a list ever will.

Book Review

Field Guide to the Snakes and Other Reptiles of Southern Africa, by Bill Branch. 1988. Ralph Curtis Publishing, Inc. 326 pages, 525 color photographs (in 96 plates), distribution maps and line drawings. Price: $29.95. Available from: Ralph Curtis Publishing, P. O. Box 183, Sanibel Island, Florida 33957, Telephone (813) 472-5490.

It is always difficult to identify exotic reptiles and amphibians. For species from Africa in particular, the necessary information has previously been scattered in a variety of hard-to-

find or out-of-date sources. Here at last, in one volume, are keys to identification, range maps, color photos and some natural history information on nearly 400 species of reptiles.

The book begins with the usual introductory material of a good field guide about how to use the book. I was very pleased to see that Branch first cautions that most of the reptiles covered by the book are protected, and then reminds the reader that "there is no reason why reptiles cannot be enjoyed in the field as much as birds or mammals; there is no need to collect every specimen."

In three detailed pages, Branch gives an overview of the environment of southern Africa and describes the major reptile habitats. Keys are provided in the appropriate places throughout the text for genera and species, and particular features of some animals are illustrated with clear line drawings. The distribution maps are a little small, but very clear.

The information on biology and breeding provided for each species was my favorite part of the book. Branch packs a lot of information into very few words. Anyone interested in the ecology of southern African reptiles, and especially in their captive maintenance and breeding, will find this data invaluable. His species description are good, with the range map on the same page and the plate number referenced for ease in locating the appropriate color photograph.

Some of the information provided I found truly fascinating. For instance, the serrated hinged terrapin (*Pelusios sinuatus*) will "take engorged ticks from the legs of drinking buffalo and other large game," the forest cobra (*Naja melanoleuca*) has been known to live for 28 years in captivity, and the southern rock lizard (*Lacerta australis*) is the rarest lizard in the region — only one specimen was collected between 1926 and 1973. Information is also provided on selection of the appropriate antivenom, if known, for treatment of the bites of the numerous venomous snakes of the region—information useful both in the field and for the reptile keeper, obviously.

The first two color plates contain nine habitat photos. Among the photos of reptiles are two identified only as undescribed species of a dwarf chamaeleon and a leaf-toed gecko, reinforcing Branch's statement in the introduction that there remains much herpetological work to do in southern Africa. North American readers will be startled to see a turtle on plate 10 that looks just like a red-eared slider. It turns out to be just that, although Branch uses the name "red-eared terrapin." It seems that *Trachemys scripta* is commercially farmed in parts of southern Africa.

All but a few of the photographs show the reptiles on naturalistic backgrounds, and many appear to be actual field photographs of very high quality. Some photos of neonates are included., and one photo even has a southern rock agama (*Agama atra*) about to become the lunch of a fluffy eagle chick.

The book concludes with a three-page glossary, suggestions for further reading, addresses of societies and museums of the region involved in herpetological research, and an eight-page index to common and scientific names.

This is a beautiful book — very well made, clearly written, a good size for field use, packed with information, and the photographs are of very high quality. This is not the kind of field guide that will sit on the shelf until it is needed — it is a very readable and interesting account of some fascinating reptile species that you will want to sit down and pour over page by page.

— John E. Simmons
Museum of Natural History
The University of Kansas
Lawrence, Kansas 66045

The Society for the Study of Amphibians and Reptiles Announces Two New Books
To Be Published in Fall 1989 to Commemorate the First World Congress of Herpetology

SNAKES OF THE *AGKISTRODON* COMPLEX

by the late Howard K. Gloyd and Roger Conant

THIS LONG-AWAITED WORK is the first monographic treatment of the poisonous snakes originally included in the genus *Agkistrodon* but now placed in four genera: *Agkistrodon* of Asia and America, *Calloselasma* of Southeast Asia and Java, *Deinagkistrodon* of China, and *Hypnale* of India and Sri Lanka. In all, 33 taxa are covered. For each taxon there is a chresonymy, followed by sections entitled Type Locality, Vernacular Names, Definition and Diagnosis, Scutellation, Hemipenis, Coloration and Pattern, Form and Size, Distribution, Specimens Examined, Natural History and Ecology.

The book is extensively illustrated, with a color frontispiece (from a watercolor by David M. Dennis), **32 color plates** (247 separate photographs of animals and their habitats), 20 black and white plates (of skin patterns, heads, and entire animals), 60 text figures, and 28 maps showing distribution. There are also 14 tables and 6 charts.

The authors of the main text have been two of America's most respected authorities on snakes for over half a century. The late Dr. Gloyd, former Director of the Chicago Academy of Sciences, was the author of "The Rattlesnakes, Genera *Sistrurus* and *Crotalus*," one of the landmark books in American herpetology. Dr. Conant, former Director of the Philadelphia Zoo, is the author of the best-selling "Field Guide to Reptiles and Amphibians of Eastern and Central North America," in the Peterson series.

The authors began their project to monograph the genus *Agkistrodon* in 1929 and since that time have published numerous papers on these snakes. This book represents the culmination of decades of detailed study of more than 6200 specimens, field work by the authors in many parts of the range of these snakes, and the synthesis of everything that is known about their systematics and natural history. Their text includes a comprehensive bibliography of nearly 2000 titles.

This book is also packed with **discussions of general interest**, including the following:

• The Cantil, *Agkistrodon bilineatus*, which survives through a severe annual season of drought by aestivating, and should not be called the Mexican "water" moccasin. On the opposite side of the world the Malayan Pit Viper, *Calloselasma rhodostoma*, endures a similar quiescent period, and occurs only in regions that have an annual dry season of a month or more.

• Vipers, esteemed as "medicine" in the Orient, are believed to cure a variety of ailments ranging from impotence to serious diseases. A favorite way to obtain the greatest benefit is to kill a snake, remove the gall bladder, and swallow it at once with a glass of rice wine.

• The Himalayan Pit Viper, *Agkistrodon himalayanus*, has been reported from 16,000 feet (4877 m), probably the highest elevation ever recorded for a snake.

• A full dozen taxa of pit vipers, including subspecies, was swept for decades into a taxonomic "wastebasket," labelled *Agkistrodon halys*. The Asian snakes of the genus *Agkistrodon* are much smaller, in both length and bulk, than the American copperhead, *Agkistrodon contortrix*.

• Special essays included are "The Mamushi Industry in Japan" by Richard C. Goris and "American Copperhead in History, Folklore, and Religion" by Roger Conant.

Supplementing this main text are **nine ancillary chapters**, each written by the leading specialists on various topics of relevance:

• Ritualized Behavior in *Agkistrodon* and Allied Genera, by Charles C. Carpenter and James C. Gillingham

• Chromosomes of *Agkistrodon* and Other Viperid Snakes, by Charles J. Cole

• The Fossil History of the Genus *Agkistrodon* in North America, by Roger Conant

• The Palearctic Species of *Agkistrodon*, by the late Howard K. Gloyd

• An Updating of the Literature on Venoms and Envenomation in *Agkistrodon* and Its Allies, by David L. Hardy

• General Skull, Bone, and Muscle Variation in *Agkistrodon* and Related Genera, by Kenneth V. Kardong

• A Review and Comparison of Hemipenial Structure in the Genus *Agkistrodon (sensu lato)*, by Edmond V. Malnate

• Immunologic Relationships in *Agkistrodon* and Related Genera, by Sherman A. Minton

• Pleistocene Forests and Copperheads in the Eastern United States, and the Historical Biogeography of New World *Agkistrodon*, by Thomas R. Van Devender and Roger Conant

The book is about 550 pages (8.5 x 11 inches or 21.5 x 28 cm) and is bound in library-grade buckram cloth. A complete list of the book's contents and a specimen color plate are given in the March 1989 issue of *Herpetological Review*; copies of that ad are available on request from the Publications Secretary. There is an order blank on the next page.

SOCIETY • FOR • THE • STUDY • OF • AMPHIBIANS • AND • REPTILES

CONTRIBUTIONS TO THE HISTORY OF HERPETOLOGY

by Kraig Adler, John S. Applegarth, and Ronald Altig

THIS BOOK consists of three separate sections, each of them worldwide in coverage and including herpetologists of both past and present. **The first and longest section, by Kraig Adler,** is a series of detailed biographies of the leading contributors to herpetology—each complete with a portrait, signature, and references to other biographical information—followed by an extensive bibliography of historical works in herpetology. These biographies feature 150 persons, but also include information about their colleagues and students, so that the effective coverage is more than 500 individuals. A wide range of persons is included, from gifted amateurs sometimes having no formal education at all to the most distinguished and influential people of their day. Biographies are arranged chronologically so that the development of the field of herpetology can be visualized. There is a comprehensive index.

The 150 biographies include these 100 persons:

- Leading herpetologists such as Boulenger, Cope, Daudin, the Duméril, Fitzinger, Merrem, Mertens, Noble, Wilhelm Peters, Schlegel, Schmidt, Stejneger, Strauch, Wagler, and Werner.
- Great naturalists who dabbled in herpetology: Agassiz, Cuvier, Gessner, and Linnaeus.
- The explorers Espada, Maximilian zu Wied, Spix, and Tschudi.
- Collection builders Baird, Barbour, Boettger, Gray, Günther, Logier, Seba, and Van Denburgh.
- The popularizers Ditmars, Kauffeld, and Vogel, the terrarist Klingelhöffer, and serious amateurs Klauber and Malcolm Smith.
- Authors of herpetological textbooks (Goin, Terentjev), prominent teachers (Boring, Gaige, Myers, Ruthven, Wright), anatomists (Baur, Bojanus, Camp, Haas, Alfred S. Romer), and ecologists (Blair, Cowles, Tinkle).
- The artists Roesel von Rosenhof and Sordelli.

The coverage is comprehensive, including:

- Geographic areas such as the USA (Cochran, Garman, Girard, Harlan, Holbrook, James Peters, Pope, Rafinesque, Say, Edward Taylor), Australia (Glauert, Kinghorn, Krefft, Mitchell, Waite), and Africa (Anderson, Bocage, Vivian FitzSimons, Hewitt, Loveridge, Pitman, Andrew Smith, Villiers).
- Experts on taxonomic groups such as frogs (Liu, Miranda Ribeiro, Okada), salamanders (Bishop, Dunn, Sato), turtles (Carr, Deraniyagala, Medem, Schöpf, Siebenrock), and snakes (do Amaral, Blanchard, Gloyd, Hoge, Jan, Maki, Oshima, Russell, Wall).

The second section, by John S. Applegarth, is an index of over 2400 authors in taxonomic herpetology, an unique reference for researchers, librarians, and historians. Included is everyone who has ever proposed a new taxon within the living families of amphibians and reptiles, as well as persons who were honored by such taxa *and* who authored at least one contribution to herpetology. Authors are identified by their full names, exact dates of birth (and, if applicable, death), countries of residence, and the taxonomic orders in which they proposed new names.

The third section, by Ronald Altig, is a listing of herpetologists giving the names of their university and major professor, and the date of their doctoral degree. The information is arranged in such a manner that the academic lineages of herpetologists can be followed from generation to generation. 1300 names are included and indexed.

The book is about 200 pages long (8.5 x 11 inches or 21.5 x 28 cm) and is bound in library-grade buckram cloth. There is a color frontispiece and 150 photographs. A sample account is printed in the March 1989 issue of *Herpetological Review*; copies are available on request from the Publications Secretary.

PRICES & ORDERING INSTRUCTIONS. Books can be obtained from the Publications Secretary, Robert D. Aldridge, Department of Biology, St. Louis University, St. Louis, Missouri 63103, USA. Make check payable to "SSAR"; receipt sent on request. Prices include shipping charges (book rate) within USA; overseas orders will be billed only for the *additional* costs in excess of domestic rates. Publications sent at customer's risk; however, packages can be insured at cost. Overseas customers must make payment in USA funds, by International Money Order, or by MasterCard or VISA (give account number and expiration date).

- **GLOYD & CONANT: SNAKES OF THE *AGKISTRODON* COMPLEX**
  - ( ) Prepublication price to SSAR members if ordered before 1 July 1989.....$60
  - ( ) Price to Institutions, Non-members, and to all purchasers after 1 July 1989.....$75
- **ADLER ET AL.: HISTORY OF HERPETOLOGY**
  - ( ) Prepublication price to SSAR members if ordered before 1 July 1989.....$15
  - ( ) Price to Institutions, Non-members, and to all purchasers after 1 July 1989.....$20

Both books will be published in Fall, 1989. The Society for the Study of Amphibians and Reptiles publishes *Journal of Herpetology, Herpetological Review, Facsimile Reprints in Herpetology, Herpetological Circulars, Contributions to Herpetology* (monographs), and *Catalogue of American Amphibians and Reptiles*. Pricelist of publications and information on Society membership are available on request from Dr. Aldridge.