

# KANSAS HERPETOLOGICAL SOCIETY

## NEWSLETTER No. 106

DECEMBER 1996



### ANNOUNCEMENTS

#### NEW BOOKS

The Society for the Study of Amphibians and Reptiles announces publication of *Gecko Fauna of the USSR and Contiguous Regions* by Nikolai N. Szczerbak and Michael L. Golubev. This is an English translation of a work originally published in 1986 and is the only comprehensive monograph on the Palearctic gecko fauna. This translation has been corrected by Michael Golubev and updated with references to the recent literature since 1986.

This 230 page volume with 24 color photos, 98 black-and-white figures, keys, bibliography, and index is available for \$48 + \$3 shipping and may be ordered from Robert Aldridge, SSAR Publications Secretary, Dept. Biology, St. Louis University, 3507 Laclede Avenue, St. Louis, Missouri 63103. Make checks payable to "SSAR."

Krieger Publishing announces the publication of three new books, *A Guide to the Frogs and Toads of Belize* by John R. Meyer and Carol Farneti Foster, *Biogeography of the Reptiles of South Asia* by Indraneil Das and *Practical Encyclopedia of Keeping and Breeding Tortoises and Freshwater Turtles* by A. C. Highfield. These volumes list for \$24.50, \$27.50, and \$49.95 (paper) respectively, plus \$6 shipping hardbound or \$3 paper. They may be ordered from Krieger Publishing, P. O. Box 9542, Melbourne, Florida 32902-9542; phone (407) 727-7270.

*The Fragile Frog* by William P. Mara, Illustrated by John R. Quinn, Produced by Albert Whitman & Co. 6340 Oakton Street, Morton Grove, Illinois, 60053-2723 (800) 255-7675, In Illinois (847) 581-0033.

All over the earth, frogs are disappearing. Some species are gone forever. Others are surviving, but endangered. Why is this happening?

A frog is small and fragile, but it can do amazing things. It can live underwater or in trees; it can breath through both its lungs and skin. As it develops from egg to adult, a frog completely changes from a plant-eating "fish" to a meat eating landlubber. To live this life, a frog needs the right stuff- clean water, good food, healthy air. And it is getting harder and harder for frogs (and all creatures!) to find these ingredients.

In this fascinating account, herpetologist William P. Mara describes the life of the endangered Pine Barrens treefrog and its struggle to survive its most powerful enemy- humankind. "I felt there was a need for children to be made aware of some of the problems that the world's environment (natural) currently faces. Some of them will, after all, be the leaders of tomorrow," Mr. Mara said.

Beautiful illustrations by John R. Quinn and full-color photographs add to the reader's appreciation of this tiny, beautiful animal.

The author and illustrator live in New Jersey.

#### PORTUGUESE

#### HERPETOLOGICAL

#### ASSOCIATION

The Portuguese Herpetological Association was created in 1993, with the main objective of bringing together Portuguese herpetologists and establishing contacts with other scientific institutions having herpetological programs.

Currently, the Association has 80 members and is now organizing the IVth Iberian Herpetological Congress, in conjunction with the Spanish Herpetological Association. The Congress aims to bring together different research groups in herpetology in order to review the more recent advances in the discipline, promote the interchange of opinions, and facilitate personal contacts and collaboration between work groups. The IVth Iberian Herpetological Congress will be held at Oporto, Portugal, between 5-8 December 1996.

Three Plenary Sessions have been organized. Participants will have a chance to present oral communications as well as posters. Papers and posters will be grouped according to subject, and each speaker will have a maximum of 10 minutes per presentation followed by a 5 minute discussion period. Each session will be coordinated by two members of the Scientific Committee, who will conduct a brief discussion following each communication.

We hope that the Congress will be the start of a fruitful exchange of ideas and cooperation projects between the herpetological associations of the Iberian Peninsula and other countries.

## KHS BUSINESS

### 23RD ANNUAL MEETING OF THE KANSAS HERPETOLOGICAL SOCIETY A SUCCESS

The twenty third annual meeting of the Kansas Herpetological Society held at Lawrence High School on 2-3 November 1996 was, as usual, a success. Over 60 persons attended to hear speakers such as former KHS President Jan Caldwell and Laurie Vitt, both of the University of Oklahoma, the legendary Martinez de Capronio, and others share secrets of the herpetological world.

The business meeting on Saturday afternoon dealt with several matters. In the annual elections, John Lokke of the University of Nebraska was chosen as President Elect and Karen Toepfer was re-elected Secretary/Treasurer. The second item of business was to vote on the proposed changes to the KHS Constitution. Those gathered voted unanimously to split the now combined post of Secretary/Treasurer. We will elect a new Secretary at next year's annual meeting. Anyone interested in holding this post should contact President Karen Graham. The last order of business was the presentation of the Howard K. Gloyd/Edward H. Taylor Scholarship. This year's recipient was Emily Moriarty of Lawrence. Due to her ongoing college studies, Emily was unable to attend the meeting but her mother, KHS stalwart Carolyn Moriarty, accepted in her absence.

In a bit of a change from years past and due to the generosity of KHS President Stan Roth's son-in-law, the annual social and auction was actually held in a bar, Louise's. Auctioneer extraordinaire Joe Collins cajoled and wheedled those assembled into departing with their hard-earned dollars and the final amount raised was \$775.00.

The Sunday morning session concluded shortly after noon and President Stan Roth passed the gavel to incoming President Karen Graham. Those assembled then made their ways peacefully home. The total amount raised for the Society through registrations, book sales, T-shirt sales, and the auction was \$1,986.00. Thanks go to Stan and Jan Roth for organizing the meeting and to all those who attended and made it a success. See you next year at the Sedgwick County Zoo in Wichita.

### MANY AMPHIBIAN AND REPTILE SPECIES IDENTIFIED DURING KHS 1996 FALL FIELD TRIP TO WABAUNSEE COUNTY

Forty-one enthusiastic individuals spent an enjoyable and very productive weekend from 27-29 September 1996 collecting, photographing, and observing some of the amphibians and reptiles native to Wabaunsee County, Kansas. The group included many KHS members from

around the state, a large group of students and adults from Topeka Collegiate School, several representatives from the Topeka and Shawnee County Public Library, interested individuals from Kansas State University, and others.

Participants began arriving at the camp site located along the banks of Lake Wabaunsee early Friday evening, and by 10:00 A.M. Saturday the group had grown to over three dozen "herpers" that were ready to begin a day of road collecting and rock turning in a rugged area located about five miles north of their camp. The night had been cool, but with clear skies and the warm morning sun, everyone was looking forward to a good day of collecting.

The group spent much of Saturday in the field. A few dedicated individuals spent Saturday night camping and continued their quest Sunday morning and afternoon. The final totals of amphibians and reptiles for the weekend included 155 individuals representing 22 species.

The weather was about as close to perfect as can be expected in Kansas. It was a great adventure, and more than just amphibians and reptiles helped make the event one of the best fall field trips ever. The sound of coyotes and owls at night as well as observations of prairie chickens, deer, quail, cottontails, raccoons, a variety of waterfowl, hawks, and several species of song birds added to the awesome beauty of the Flint Hills. Of course, sitting around a campfire with friends is always a good way to spend a cool Kansas fall evening.

The following persons attended the field trip: Lucia Baldwin, Mary Kate Baldwin, Dan Carpenter, Shelbi Carpenter, Keith Coleman, Joseph T. Collins, Suzanne L. Collins, Cara Cowger, Bo Cullen, Neal Cullen, Pat Cullen, Danitra Cushinberry, Shirley Dinkel, Myrna Duddy, Jamie Golightley, Jim Gubanyi, Joe Gubanyi, Marla Gubanyi, Joy Jeffery, Jennifer Jones, Caleb Karch, Gail Leedy, Jennifer Love, Damon Mar, Brandon Miller, Larry L. Miller, Suzanne L. Miller, Derek Moeller, Carolyn Moriarty, Michael Moriarty, Andrew Moriarty, Dan Murrow, Jocelyn Nichols, Kerstin Nordstrom, Cody Southerland, Deb Southerland, Sarah Twemlow, Susan Twemlow, Jonas Wilson-Leedy, Alex Woodward, and Gail S. Woodward

### AMPHIBIANS AND REPTILES OBSERVED

Species	Specimens
Northern Cricket Frog .....	65
Western Chorus Frog .....	1
Plains Leopard Frog .....	31
Bullfrog .....	5
Plains Narrowmouth Toad .....	1
Collard Lizard .....	8

Great Plains Skink .....	1
Western Slender Glass Lizard .....	2
Common Snapping Turtle .....	1
Painted Turtle .....	1
Ornate Box Turtle .....	2
Ringneck Snake .....	20
Flathead Snake .....	1
Racer .....	1
Eastern Rat Snake .....	1
Common Kingsnake .....	1
Milk Snake .....	1
Northern Water Snake .....	3
Western Ribbon Snake .....	2
Common Garter Snake .....	3
Lined Snake .....	1
Timber Rattlesnake .....	3

Total

22 species ..... 155 specimens

— Larry L. Miller  
840 S.W. 97th Street  
Wakarusa, Kansas 66546

### THIS AND THAT

Well, another publishing year for the KHS Newsletter comes to a close with this issue. I would like to thank those people who have helped with all the myriad details in producing said publication. These are: Joe Collins, Ann Rundquist, and Dave Reber. I want to especially thank Dave, who is resigning his post as Assistant Editor due to the press of a new job, a new child, and the intransigence of a certain department of the U. S. Postal Service (I use the latter term hesitantly). Dave has done an admirable job in handling the most onerous aspect of producing the Newsletter: sorting, stuffing, understanding changing postal regulations and smoothing over past kinks, and delivering the finished product to the post office. He has my heartfelt gratitude and that of the Executive Council and we all wish him well in his new endeavors. Anyone in the Lawrence area wanting to assume the position of Chief Stamplicker for the KHS Newsletter should drop me a line or give me a call.

I offer my apologies for the lateness of the September issue. Due to certain circumstances beyond my control and the aforementioned problem with the Post Office, it arrived too late for most members to make plans for the fall field trip, although it was issued in September. I have taken steps that I hope will alleviate this problem in the future.

I also want to extend congratulations to KHS co-founder Joe Collins for being recognized by Governor Bill Graves as *The Wildlife Author Laureate of Kansas* (see article in the News of the World section of this Newsletter). No one is more deserving and it brings honor to our Society.

In the next issue of the Newsletter, I will be adding a box on the first page that will list the proposed KHS field trips for 1997 and will also list meetings and conferences in the state of interest to our membership. Anyone who wants such meetings listed should write me with the appropriate information as far in advance as possible. Remember our publication schedule is now March, June, September, and December.

Last, I want to wish everyone a prosperous and successful Herpin' New Year. Keep those articles coming and remember to throw in a couple of extra dollars for the Gloyd/Taylor Scholarship (please note the exact amount above normal dues) when you pay your dues for the coming year.

— EMR

### EMILY MORIARTY WINS KHS GLOYD/TAYLOR SCHOLARSHIP

Emily Moriarty, KHS member and currently an undergraduate in biology at St. Mary's College, Notre Dame, Indiana, is the 1996 recipient of the Howard K. Gloyd/Edward H. Taylor Scholarship. The scholarship, awarded annually to a deserving student of amphibians and reptiles, was presented at the 23rd Annual Meeting of the Kansas Herpetological Society in Lawrence on 2 November 1996 by KHS President Stanley Roth. Accepting for Emily, whose studies and research at St. Marys College precluding her being present, was her mother, Carolyn, long a KHS member and enthusiastic field trip participant.

Emily Moriarty is no stranger to KHS members, having attending many KHS field trips and meetings with the Moriarty clan. With KHS member Joseph T. Collins, she co-authored her first two papers, *First Known Occurrence of Amphibian Species in Kansas* (1995 KHS Newsletter 100: 28–30) and *An Estimate of Numbers of Plains Leopard Frogs at a Site in Northeastern Kansas* (1995 KHS Newsletter 102: 14–15). More recently, she authored *An Amphibian and Reptile Count in the Appalachian Mountains of Western North Carolina* (1996 KHS Newsletter 104: 19–20) and *A Preliminary Report on Number, Seasonal and Daily Activity, and Growth Rate of a Population of Painted Turtles (Chrysemys picta) in Northeastern Kansas: A Three Year Study* (1996 KHS Newsletter 105: 5–15). Emily's research accomplishments were undertaken and completed prior to her enrollment at St. Marys College, and while she was both a student at Lawrence High School and being home-schooled. Last summer, she worked on the molecular systematics of *Pseudacris* in Walter Dimmick's laboratory at the KU Natural History Museum.

Emily Moriarty was mentored in her early career by Joe and Suzanne Collins, both KHS members whose other "adopted" students, Kelly J. Irwin and Travis W. Taggart, are doing well in graduate school at Texas A&M University and Southeast Louisiana State University, respectively.

## KHS BRINGS YOU GREAT NEWS OF THE WORLD

### KANSAS GOVERNOR BILL GRAVES BESTOWS AWARD ON KU WILDLIFE AUTHOR

After a lifetime of writing about wildlife and the environment, Joe Collins, editor and herpetologist at the [University of Kansas] Natural History Museum was honored as *The Kansas Wildlife Author Laureate*.

In a brief ceremony at the Statehouse, Gov. Bill Graves signed a proclamation that recognized Collins' work as a wildlife writer and editor.

Collins' career as an herpetologist, or one who studies amphibians and reptiles, began as a 13-year-old growing up in Ohio.

"I had a very understanding father who encouraged my interest in wildlife. It got out of hand," Collins said, laughing.

In 1968, Collins began work at the museum as a zoologist and collections manager.

This month, Collins will have finished his 20th book on the natural world, titled *A Guide to the Reptiles and Amphibians of Fort Riley and Vicinity*.

Collins is also known for editing the 1985 book, *Natural Kansas*, which he called his proudest achievement. The book outlines the native flora and fauna of the state.

Writers in Louisiana have contacted Collins about using the same format for a similar book in their state. He said the book was important in dispelling some misconceptions about the native wildlife, such as that carp, pigeons, starling, and wheat were all native to Kansas.

"You want to get it back to what it really was," Collins said.

The most popular book Collins has written, he said, is the *Peterson [Field] Guide to Reptiles and Amphibians [of Eastern and Central North America]*, which took about seven years.

Collins' wife, Suzanne, has provided photographs [for] 11 of his books.

The greatest challenge to the environment in Kansas was convincing Kansans to make allowances for the creatures that were here before people were, Collins said.

"You need to bring a lot of folks together from a wide background, including environmentalists, to make the kinds of decisions that avoid confrontation," Collins said.

The award is the first time that a Kansan has been recognized as a laureate in any field, said State Rep. Tom Sloan. Sloan nominated Collins for the award and worked with the governor's office in completing the awarding process.

Frank Cross, professor emeritus of systematics and ecology, collaborated with Collins on a book titled *Fishes in Kansas*. He said Collins' enthusiasm and initiative have

benefited the ecology of Kansas.

"He's really interested in public awareness in conservation, preservation, and survival of the state's native species," Cross said.

Phillip Humphrey, who served as director of the museum from 1967 to 1995, said he hired Collins as a zoologist at the museum in 1968. Humphrey said he enormous respect for what Collins had done.

"He's done an outstanding job in popularizing the natural history of the state," Humphrey said. "To my mind, that's a very significant contribution."

—University Daily Kansan, 11 April 1996  
(Submitted by Suzanne L. Collins, Lawrence)

### STATE SINKS FANGS IN SNAKE MAN

"They're all just jealous because they didn't get to be in the CNN movie," said Rudolf "Rudy" Komarek. Komarek is a local rattlesnake hunter of some renown who recently had his rattlesnake hunting license revoked for two years due to numerous violations of the Pennsylvania Fish and Boat Code.

Komarek was charged with two separate incidents of capturing and possessing more than the state limit on rattlesnakes. The first charge was a result of a harvest card he had filed May 8, 1994, on which he reported that he had caught 12 Timber Rattlers out of season. The second incident stemmed from an appearance Komarek made on CNN's Network Earth.

On June 10, 1995, Komarek took a CNN camera crew with him on the first day of rattlesnake season. The crew documented the capture of two Timber Rattlesnakes. The daily state limit is one snake. Wildlife conservation officer Craig A. Garman and deputy wildlife conservation officer claimed to have observed Komarek and the film crew enter the woods and take the rattlers. Komarek claims that there were no officers there at the time. Edward Manhart, director of Pennsylvania Fish and Boat Commission bureau of law enforcement, disagreed.

"We had officers observe him. A lot of times we have people observe people from hidden locations," said Manhart.

Komarek believes that the charges were filed because of the jealousy of the officers.

"They were mad because they weren't in my CNN thing. That's not my fault but now they want a piece of the action. They told me I was just too popular," said Komarek, a resident of Newburg.

Komarek claims the reason the charges were late — they were filed on March 4 — was because the fish and boat commission had no plans on filing charges until its excerpt

in the CNN footage was cut out of the final product. Manhart offers a different explanation.

"There is a two-year statute of limitations on these infractions. It was simply a matter of seeing what else he may be doing. Besides," explained Manhart, "he's hard to get a hold of and he has a tendency to disappear for long periods of time."

Arresting officer Craig A. Garman wrote in his report the "'based on the defendant's (Komarek) disregard for the laws protecting T. Rattlesnakes, I recommend four years revocation of snake hunting privileges. Two years for each Pa. violation."

The recommendation of four years was dropped to two years.

Komarek responded in a letter to Manhart. "The arresting officer's comment indicating I have disregard for the laws protecting T. Rattlesnakes is quite factual. These laws are ridiculous and are designed to placate the wishes of the wealthy 'nature watcher' who occasionally may wish to take guided nature walk, or may wish to read a magazine article concerning someone else's fantastic aesthetic experience.

"The majority of the people who live and work in proximity to the forest environment loudly applaud any efforts which I might take to lessen the number of rattlesnake residing in the areas in which they occupy. Very, very few of the snakes which I catch do I kill. This is quite contrary to the wholesale slaughter which takes place whenever most people encounter any snake, no less a rattler."

"He (Komarek) has the same rights as any individual and he has the right to his opinion," said Manhart in a recent telephone interview.

Komarek doesn't kill the rattlesnakes he captures. Most of his snakes are sent to toxin research centers while others are sent to private zoos.

Despite Komarek's objections, his permit was revoked and "it is illegal to hunt, take, catch or kill Timber Rattlesnakes during the period when your privileges are revoked," according to the notice of license revocation. The notice went on to say, "When the period of revocation is over (August 31, 1998), you will be able to again apply for a Rattlesnake Hunting Permit. When that occurs, we sincerely hope that you will comply with all applicable laws and regulations."

According to Komarek all that has been accomplished by revoking his license is that it will save him \$5 for the license, but he will continue to hunt rattlesnakes. Komarek has been arrested seven times in Pennsylvania in connection with his involvement with rattlesnake hunting as well as being in trouble in New York state.

"The reason they don't like me in New York is because certain people think I've taken too many rattlesnakes out of the state. I've taken over 9,000 snakes out of the state over

the past 45 years," Komarek said.

Manhart summed up the matter. "This is probably somewhat unusual. We mainly deal with fishing violations. Every year we have some reptile violations, but this is definitely one of the most unusual."

— The News-Chronicle Company, 22 August 1996  
(Submitted by Suzanne L. Collins, Lawrence)

Ed. Note: See *KHS Newsletter 101* for Rudy's previous adventures in Kansas.

### **THIRTEEN-FOOT BURMESE PYTHON KILLS OWNER**

According to the New York Times, 19-year old Grant Williams of 365 East 183rd Street Bronx died as the result of an attack by his 13 foot long Burmese Python which may have mistaken him as food.

The victim was found at about 1:30 P.M. on October 9th by a neighbor lying in a pool of blood with the snake coiled around his torso in the hallway of his apartment building. He was pronounced dead at Jacobi Medical Center. An ambulance crew removed the snake from the victim and it was taken to the Bronx Zoo.

According to the report Williams and his 17-year-old brother Lamar purchased the snake at a local pet store known as Pet City about five months ago for \$300.00.

This attack may be a feeding related incident as a live chicken was found nearby, still in the box. Williams was apparently getting ready to feed the snake, out of its cage. Pythons, like other snakes, have an acute sense of smell. The detection of a food odor such as a chicken and the proximity of Williams to the snake evidently led the snake to mistake Williams as its prey or food.

This case, like others including cases seen by the undersigned in the E.R. indicate that prey items such as rodents, chickens or rabbits do not have to actually scent a human in order for a snake to attack them. The mere presence of the food in the vicinity can set off a sort of feeding frenzy. Therefore feeding snakes, especially large ones capable of inflicting significant injury or death, should be done with extreme caution. HerpMed strongly recommends that owners of large boids feed them only in their enclosures or cages. Under no circumstances should such snakes be fed in the open or in a unrestrained manner. The mere presence of food in the vicinity can set off an attack as has been demonstrated countless times, often with tragic consequences.

Food should be inserted into the cage quickly and carefully, preferably using long-handled tongs such as barbecue tongs. It need not be alive and should be pre-killed to facilitate handling. It is important that a snake in olfactory contact with food or prey not be permitted access to its human caretaker. Feeding a large boid is not the same

as feeding your dog or cat. Large boids should not be allowed to free-roam. They can unpredictably attack anyone in the household or escape by pushing out a window or screen with relative ease. Anyone considering the acquisition of such an animal should have the space and funds to house it adequately and safely without resorting to allowing it free roaming privileges. Such snakes should not be handled before or after feeding for several days and then only if there are no olfactory stimuli to provoke a feeding attack. In addition such animals should not be handled unless two or more people are present capable of removing the snake should it attempt an attack. Many jurisdictions prohibit the keeping of such animals without proper permits or licenses. Doing so is not only a legal violation, it is a breach of the public safety — your own, other members of your family and that of your neighbors and friends. Questions, suggestions, comments for these guidelines are solicited. Please contact: grenard@con2.com. Thank you.

— Internet download, based on a New York Times Report, 10 October 1996.  
(Submitted by Ralph Black, Lawrence)

#### LESSON ON SNAKES SINKS IN

Scott Wilson wants his snake back — after he gets out of the hospital. The red haired, freckle-faced 16-year-old from Lemay was bitten by a Cottonmouth last week — the first Cottonmouth ever documented in the St. Louis area.

The bite on Scott's right index finger produced a blister the size of a golf ball and left his hand and forearm discolored and swollen. Doctors feared they might have to amputate his finger, but his condition improved Monday. He expected to be released this week.

Among Missouri's venomous snakes, Copperheads are common here. Timber Rattlesnakes turn up occasionally in wooded areas of St. Louis County. But nobody had ever found a Cottonmouth here — until Scott grabbed his near the Mississippi River at Jefferson Barracks.

In Missouri, Cottonmouths usually are found in the Bootheel, especially at Mingo Swamp, and along streams in the southern Ozarks. They're also called water moccasins and have been seen in Southern Illinois.

"Going back to the 1800s, there are no records of one being found here — none," said Ron Goellner, curator of reptiles at the St. Louis Zoo.

Mike Aruduser agreed. He's answered hundreds of snake calls as a biologist at the Missouri Conservation Department's Powder Valley Nature Center in Kirkwood.

"We see lots of Copperheads, the rare, rare rattlesnake, but never a verified Cottonmouth," he said. "Usually if someone says they've got a Cottonmouth it's a black snake or a water snake."

Scott said he was snake hunting Wednesday near railroad tracks along the river when he saw a Black Rat Snake

crawl beneath a piece of concrete rubble. He grabbed the rat snake's tail, and was trying to coax it out, when he saw a snake nearby that was "thick as a soda can."

Scott jumped for it, but his hold behind the snake's head slipped, and it bit his finger.

"I'll let a snake bite me to catch it," he said Monday from his bed at St. Anthony's Medical Center. "I'm used to it."

He dumped the snake in the blue pillowcase and headed home on his sister's bike. When he stopped to chat with friends, he noticed his finger was swelling.

He washed the wound with hydrogen peroxide at home. But the swelling continued, so he decided to check what was in the bag. When he grabbed the snake by the tail, it bit through the pillowcase.

"I saw the fangs come through the bag," he said. "That's all it took."

A friend drove Scott to a Lemay fire station. From there, he rode an ambulance to St. Anthony's.

The next day, Scott's arm was swollen up to his shoulder. "My forearm was 12 inches around," he said

The Zoo's Goellner visited Powder Valley on Monday to see Scott's snake. "Definitely a Cottonmouth," he said.

The snake was 3 feet long and as thick as a man's wrist, was still curled inside Scott's pillowcase — in a basement freezer. Goellner said freezing was the best way to euthanize cold blooded creatures.

Goellner said Cottonmouths had been found along the upper Meramec River and could have traveled down the river with floodwater.

He said a Cottonmouth's bite was worse than that of a Copperhead because it was a bigger snake with more venom. Both snakes' bites cause nasty wounds — enzymes in the venom digest flesh — but they are rarely fatal

— St. Louis Post-Dispatch, 25 April 1996  
(Submitted by Suzanne L. Collins, Lawrence)

#### ABIOTIC DISTURBANCES IN

##### THE LESSER ANTILLES

The recent passing of Hurricanes Iris, Luis, and Marilyn across the northern Lesser Antilles (hardest hit were Anguilla, Antigua & Barbuda, Dominica, and St. Martin) has received considerable attention in the popular media because of the potential economic impact on these small, tourism-dependent islands. These fierce storms sprang from an unusual abundance of climatic disturbances in the Atlantic. The threat of further storms continues. As members of a scientific team studying herpetological diversity on the island of Montserrat, with the assistance of the government, we observed alteration of the habitat caused by these hurricanes. However, the storms only supplemented the effects of recent volcanic activity.

The clearest result of storm activity is the transfer of dense vegetation and debris from the canopy to the forest

floor. At our site on Mango Hill in northern Montserrat, the habitat initially allowed relatively easy access to streams and calling sites of both *Eleutherodactylus johnstonei* and *Leptodactylus fallax*. After Hurricane Luis, much of the protective foliage had either been removed entirely or had fallen to the ground. It is as yet unknown whether *L. fallax*, a large (SVL up to 200 mm) and economically important species, requires open ground to optimize foraging or behavioral interactions, but most wide openings have now received debris. Nevertheless, due to the heavy rainfall in conjunction with the hurricane, calling activity of both frog species was much increased during the immediate aftermath.

Volcanic activity seems to have had a more obvious negative impact on *L. fallax*. Several large emissions of ash from Soufriere volcano in southeastern Montserrat have occurred, and much of the foliage in the vicinity of the volcano, primarily to the northwest of Chances Peak, was covered with an ash layer. The heavy rains during hurricane activity washed this ash onto the ground and into the ravines and waterways. A site supporting a high density of *L. fallax* juveniles prior to some major ash falls appears to have been inundated subsequently with ash-laden runoff, and we observed dead and dying juveniles in the shallow rock pools. Emissions of Soufriere volcano are high in sulfur, and a change in water pH is a possible reason for the unhealthy young frogs. A later visit to the same site revealed that many of the pools had become filled with a gray mud and neither juveniles nor adults were seen.

It is unlikely that either volcanic or hurricane activity will lead to the extirpation of populations of frogs on Montserrat. However, a careful monitoring program will be initiated with government help. The economic importance of *L. fallax*, locally known as 'mountain chicken', lies with its reputation as a local delicacy. Hotels serve the frogs' legs to tourists. The governments of Dominica and Montserrat, where the remaining populations of *L. fallax* occur, have initiated hunting seasons to protect the breeding stock from depletion, and based on the recent surveys, in conjunction with the Montserrat Biodiversity Project, the government of Montserrat intends to ban hunting above 1000 feet altitude.

*Eleutherodactylus johnstonei* is presumed to overcome any disturbances very easily because of its excellent colonizing abilities.

Hinrich Kaiser (Institut für Humangenetik, Universität Würzburg, 97074 Würzburg, Germany) & Mark L. Day (Fauna and Flora International, Great Eastern House, Tension Road, Cambridge CB1 2DT, UK).

— FROGLOG Number 15, December 1995  
(Submitted by John, Fisher with God's Help  
von Waldheim, Stuttgart, Arkansas)

## MICROBIOLOGIST LOOKS FOR WAYS TO RID TURTLES OF SALMONELLA

Owning a baby turtle — and keeping it in a plastic dish with a fake palm tree — was once a virtual rite of passage in America. If Ronald Siebeling is successful, it may be again.

"Every dime store in the country used to sell them," remembers Dr. Siebeling, a microbiologist at Louisiana State University in Baton Rouge. Then in the early 1970s, red-eared sliders, the variety favored as pets, were identified as major carriers of salmonella, a bacterium that can make people sick. There was no known way to rid the animals of infection — it is widespread in turtles but doesn't seem to harm them — so in 1975 the U.S. Food and Drug Administration banned the sale of turtles with shells that measured less than four inches in length, the ones that were most appealing to kids.

Almost overnight, turtles disappeared from children's menageries and an industry based largely in the bayous of Louisiana began fighting for survival. Dozens of turtle farms closed, and the 45 or so survivors turned to exporting their turtles to such countries as Italy or South Korea. Today, the industry ships nine million turtles a year overseas, using a method to rid them of salmonella developed by Dr. Siebeling. (The farmers get about \$1 for each turtle, though prices spiked a few years ago when Teenage Mutant Ninja Turtles were hot.)

Even before the ban was imposed, the farmers sought help in solving the salmonella problem from the National Sea Grant Program, which does marine-science research. The farmers knew that if they couldn't find a solution, the ban would eventually spread to other parts of the world. Sea Grant organized a meeting at Louisiana State attended by Dr. Siebeling, who was intrigued by the challenge of finding a way to raise healthy turtles.

Not that getting them back in U.S. pet stores will be easy. The FDA says the only way the ban will be lifted is if the industry can show that turtles can be kept salmonella-free even after people take them home. That's tricky because one way turtles get infected is by eating raw meat, which can carry salmonella germs. Meanwhile, people interested in the humane treatment of animals doubt that turtles can be made salmonella-free but also oppose lifting the ban for other reasons. "Most pet turtles die their first year because people don't know how to care for them," says Teresa Telecky, director of the wildlife trade program at the Humane Society of the U.S.

While nobody can guarantee that turtles will be treated well by their owners, Dr. Siebeling hopes to develop a disinfectant that can be added to turtle bowl water to kill salmonella germs and prevent later infections. He is also refining the system farmers use to raise salmonella-free turtles to make it more acceptable to the FDA.

Turtle farming began in Louisiana during the Depression, when people were looking for new ways to help make ends meet. Local residents searched for turtle nests along the fringes of swamps, dug up the eggs and then reburied them closer to home. Later they started breeding turtles in fenced ponds. Until the FDA crackdown, turtle farming remained the ultimate in low-tech operations.

Dr. Siebeling — called “Dr. Ron” by many of the farmers — realized the main problem on the farms was poor sanitation. He developed a system in which the eggs are washed with cleanser, treated with antibiotics and then incubated in clean plastic boxes that look like big Tupperware containers. By eliminating germs from the shells of the eggs, he removed the main pathway by which salmonella was being transmitted from infected adults to their offspring.

One such operation is Paul Hebert’s farm in tiny Pierre Part, La. Started by Mr. Hebert’s father 35 years ago, it consists of three muddy ponds and a glistening new processing plant with white walls and a big egg washing machine designed for the poultry industry. On a recent day, Mr. Hebert’s wife, Dana, took trays of eggs dug up earlier and fastened plastic screens over the tops to keep the eggs from spilling out during washing.

“This is our secret weapon,” says Mr. Hebert, as he measures capfuls of Clorox into a water tank where the eggs will undergo the first phase of cleaning. After soaking in the Clorox solution and going through the washing machine, the eggs are placed in tanks with a solution of water and antibiotics. The tanks sit in a big aluminum box that works as a vacuum chamber, drawing air from inside the box and the pores of the egg shells. When pressure is released, the antibiotics are sucked into the eggs’ pores, attacking any salmonella that may lurk there.

The system is very good at eliminating salmonella. But it has a big drawback in the eyes of federal regulators: By relying on antibiotics, it may help create strains of drug-resistant salmonella. That means that the industry has to come up with an alternative to the antibiotics before it can even consider talking to the FDA about lifting the ban.

Dr. Siebeling thinks he’s getting close to finding such a substitute. Experiments in 1993 indicated that biguanide — a powerful disinfectant being developed, among other things, as a substitute for chlorine in swimming pools — was a perfect alternative for antibiotics. He tried it last year, but it didn’t work: Many turtles treated with it had to be destroyed after salmonella was detected in them. This year, he’s experimenting with different concentrations of biguanide and using different sanitizing agents in place of Clorox.

During the peak of the turtle season this July, Dr. Siebeling’s laboratory will become a temporary home for up to 3,000 turtles — samples drawn from farms around the state. If the test is successful this year, Dr. Siebeling thinks

the farmers could approach the FDA within five years about the possibility of ending the ban.

—The Wall Street Journal Interactive Edition  
30 May 1996  
(Submitted by E. R. Dumm, Protection)



### WTO CHALLENGE LAUNCHED AGAINST U.S. ENDANGERED SPECIES ACT

Four Asian nations have requested consultations with the U.S. concerning a provision of the United States Endangered Species Act which requires all nations who export shrimp to the U.S. to have in place sea turtle protection measures comparable to those required in the U.S.

The request, filed by India, Malaysia, Pakistan and Thailand under Article 22 of the World Trade Organization (WTO) dispute settlement understanding, begins the process of a formal challenge at the WTO which could force the U.S. to overturn parts of the Endangered Species Act or pay hundreds of millions of dollars to compensate shrimp fishing nations that are prevented from selling their shrimp in the United States. The four countries charged that U.S. restrictions on shrimp exports violate Articles I, III and VIII of the General Agreements on Tariffs and Trade (GATT).

The United States has 10 days to reply and 30 days to begin consultations. If no resolution is agreed to, the four nations can request a full dispute panel. If the ruling of such a panel goes against the United States, the U.S. could be forced to change the Endangered Species Act or pay compensation to the four nations equal to the value of the lost trade.

In December 1995 Earth Island Institute, the Sierra Club, the Humane Society of the United States and the American Society for the Prevention of Cruelty to Animals won a lawsuit in the U.S. Court of International Trade forcing the government to enforce the turtle/shrimp provision (P.L. 101-162 sect. 609) of the Endangered Species Act. This provision requires all nations who export shrimp to the U.S. to adopt national regulations comparable to those in the U.S., or have their shrimp products embargoed.

U.S. requirements include the use of Turtle Excluder Devices (TEDs). TEDs are simple, inexpensive net inserts which allow turtles to escape from shrimp nets. TEDs cost \$50 to \$350 per net. Earth Island Institute estimates that nearly 200,000 endangered turtles are caught and killed every year by the world’s shrimp fleets.



On May 1 over 40 countries were embargoed. The National Fisheries Institute, a fisheries industry trade organization, estimated the embargo to ban from import \$200 to \$500 million worth of shrimp annually.

Josh Floum, the Earth Island Institute lawyer who participated in the GATT proceedings related to tuna embargoes to protect dolphins, opined that the Asian nations' challenge will fail. It is only illegal for WTO member nations to enact discriminatory trade barriers. "The WTO treaty provides for exceptions to general rules against trade barriers in the case of evenhanded wildlife preservation," explained Floum, adding that the Endangered Species Act is "evenhanded" as it treats domestic and foreign shrimp fleets alike.

Todd Steiner, Director of Earth Island Institute's Sea Turtle Restoration Project said, "These nations have chosen the wrong U.S. law to challenge. The Endangered Species Act is one of our most beloved laws, and is strongly defended by the citizens of the United States. This WTO challenge may serve to show the American public the threat these so-called free trade agreements have to our democratic process, when unelected trade bureaucrats from outside the U.S. get to determine which of our laws are legitimate in the eyes of multinational corporations who control the free trade agenda." He continued, "We will work to ensure that the Endangered Species Act is not modified to meet the needs of nations that would rather wipe out the world's endangered species than adopt simple, inexpensive technologies that allow shrimp fishing and endangered sea turtles to co-exist."

(Those wishing to take further action should contact: Todd Steiner, Earth Island Institute at 415-488-0370 or Josh Floum, Legal Strategies Group at 510-450-9665)

— Internet download, October 1996  
(Submitted by Ralph Black, Lawrence)

## **TORTOISES DIE IN GALAPAGOS**

The Galapagos National Park Service (GNPS) and the Charles Darwin Research Station (CDRS) continue investigating the problem of deaths of giant tortoises in the area of El Chato on Santa Cruz Island. To date, the number of affected tortoises has not changed, with eight tortoises dead and nine with symptoms of disease. This number represents less than 1% of the total population of giant tortoises on Santa Cruz. No evidence has been found to suggest the problem is increasing or dispersing in the population.

The GNPS has established a permanent camp in the area, where park wardens can control the entrance and departure of personnel. Only authorized personnel can enter the zone. A system of disinfection has been established for those who enter the area, with the aim of avoiding the dispersion of a potential disease. The decision has been

made to burn the remains of the dead tortoises as a preventive measure, given that the cause of the deaths is still unknown.

Personnel of the CDRS, under veterinarian Dr. Edison Encalada, continue taking samples of blood and feces from the tortoises, as well as water samples from the surrounding ponds. Samples are being collected not only in the area of El Chato, where the problem is located, but also in nearby areas (La Caseta, about three kilometers away) and in more distant areas (La Torta, more than eight kilometers away). The analysis of samples from the sick and dead tortoises will be compared with results of analyses of samples from healthy tortoises in El Chato and in other areas.

Analyses of water and of blood will be done simultaneously in the CDRS and in the Republic of Ecuador Hospital in Puerto Ayora. In the coming week, samples of blood, tissue, feces, and parasites will be sent to the University of Florida, where specialist Dr. Elliott Jacobson, expert in tortoise diseases, will undertake more extensive analyses. Similarly, it is expected that the interpretation of these analyses will take several days. In continuous communications received via the Internet, Dr. Jacobson has indicated that it is possible that a specific diagnosis will not be available immediately and that the analysis is only the beginning of the work. Meanwhile, on Wednesday, the 21st of August, 1996, the first set of samples was sent to the University of Ghent in Belgium, where the parasites found in the dead tortoises will be identified.

Nevertheless, the GNPS has been emphatic in pointing out that at the moment the situation is totally under control and that there is no need for alarm, beyond the necessary precautions to avoid further mortality. Similarly, the need for patience was underlined until the results of the analyses are available. For its part, the CDRS noted the possibility that the present situation is natural and that a change in climatic conditions would improve the state of the tortoises without further human intervention.

For more information send email to: nprocto@emory.edu.

—Galapagos National Park Service & Darwin  
Research Station, 22 August 1996

## **FROGS FLEE THE WIND**

*An Australian Legend*  
Adapted By Amy Friedman

Long ago during Dreamtime, the spirits were singing songs, creating all the creatures of the Earth. The world was different from the world today, and when the frogs were created, they lived in the wide-open outback. There they slept and ate and cared for their families, and all the while the spirits sang, creating more and more creatures.

The frogs were happy with their world in the fields until one cool afternoon. They were preparing their evening meal when suddenly the tall, thick grass surrounding them began to rustle this way and that and the whole world began to feel different.

"What's that?" one of the frogs asked as she felt the brush of grass against her cheek.

The others felt it, too. It tickled their legs and backs, for the grass was shifting and swaying as it never had before. They all turned this way and that, searching to see what was causing this commotion in their field, and suddenly a soft, whispering voice asked, "May I stay here and share your meal with you? And may I sleep beside your fire tonight?"

The frogs looked through the long blades of grass to see who was speaking. No matter which way they looked, they saw no one.

"Did you hear me?" the voice called to them. "I asked if I might join you tonight."

The frogs searched again, for now the grass was shaking. "Who's there?" the frogs called.

"It is I," called the invisible voice.

The frogs looked everywhere. They searched the ground. They searched the sky. Their eyes bulged with the effort. Still, no matter how they searched their field, they saw nothing and no one. The only change was the shifting of the grass around them and the feel of cool air overhead.

"We'd better say yes," one of the frogs said, "for if we refuse, this creature may harm us."

The others quickly agreed. "Yes," they croaked into the silence. "Yes, you may share our evening meal and sleep beside our fire. You are welcome to join us."

While the frogs ate, the grass shook and shimmered, but the voice said nothing more. At last, their fire burning brightly, the frogs settled down to sleep, and before long the grass settled down, too. Still, the frogs were uneasy and slept fitfully.

The night was still, as it had always been, but with daybreak the grass began to move again. As the sun climbed into the sky, the frogs heard the voice again. "Thank you for your hospitality," it called. "I'll see you again very soon." When the voice was silent, the grass stood stiff and tall in the morning sun.

All morning the frogs spoke in whispers about their mysterious guest. "The spirits have sent someone," they said, but they could not decide who it was. They climbed onto the branches of the trees at the edge of their river and searched the distant plain. They looked far and wide but saw no one. Still they sat, waiting to see if the stranger might approach.

"Do you see it?" they whispered to one another, but no one saw a thing until midday. Then the youngest frog cried, "Look!" and all the frogs looked out past the river where the young frog was pointing. They began to quake when they saw a giant whirlwind approaching across the plain. The trees where they sat twisted and swayed and the rushes bent low as the wild whirlwind came closer and closer.

"Look out!" the frogs cried, and they clambered down the trees to seek safety in their little shelters.

As the whirlwind crossed the river, whitecaps formed, and where once the frogs had lived beside a quiet flowing current, waves now crashed on the bank. The whirlwind crashed into the frogs' camp and smashed their shelters, tossing the frogs here and there, raising giant eddies of dust in its wake. And then the whirlwind reached the fire. Coals flickered and flamed and danced.

"Who are you?" the frogs called, and they heard a voice from somewhere deep within the whirling, swirling dust and fire. "The wind," the voice called. "I want to stay with you." But now the wild red sparks flew through the air, setting the brush afire. The frogs dared not wait to hear more.

They plunged into the water, seeking safety. They dived deep, holding their breath, feeling the embrace of the cool river, terrified by the sight they had beheld.

And ever since that day, even the smallest movement of the wind in the reeds near the frog river causes such fear in the poor frogs' heart that they leap into the safety of the water. There the frogs wait until the world above the waves is once again peaceful and calm.

—Kansas City Star Magazine  
3 November 1996  
(Submitted by Suzanne L. Collins)



# FEATURE ARTICLES

## AN AMPHIBIAN AND REPTILE COUNT IN SOUTHEASTERN ARIZONA AND SOUTHWESTERN NEW MEXICO

J. DAREN RIEDLE  
1215 North 8th Street  
Independence, Kansas 67301

&

PAUL A. SHIPMAN  
Department of Zoology  
Oklahoma State University  
Stillwater, Oklahoma 74075

From 5 August–17 August 1996, while working on the junior author's doctorate project concerning snake behavior, amphibian and reptile counts were held in Hidalgo County, New Mexico, and Cochise County, Arizona. Search methods included visual searches on foot and road cruising. All non-ophidian herpetofauna were photographed and released. Snakes were put through behavioral trials, marked, and then released.

### 5 August 1996

24:00–00:30 hrs

Highway 80

Hidalgo County, New Mexico

Western Diamondback Rattlesnake *Crotalus atrox* ..... 1  
Mojave Rattlesnake *Crotalus scutulatus* ..... 2

00:30–03:00 hrs

Highway 80

Cochise County, Arizona

Couch's Spadefoot *Scaphiopus couchii* ..... 3  
New Mexico Spadefoot *Spea multiplicata* ..... 2  
Western Diamondback Rattlesnake *Crotalus atrox* ..... 2  
Mojave Rattlesnake *Crotalus scutulatus* ..... 4

11:00–14:00 hrs

Cave Creek Canyon, Chiricahua Mountains

Cochise County, Arizona

Desert Grassland Whiptail *Cnemidophorus uniparens* ..... 1  
Madrean Alligator Lizard *Elgaria kingii* ..... 1  
Yarrows Spiny Lizard *Sceloporus jarrovii* ..... 14

16:30–19:00 hrs

Geronimo Trail

Hidalgo County, New Mexico; Cochise County, Arizona.

Gopher Snake *Pituophis catenifer* ..... 1

19:00–24:00 hrs

Highway 80

Cochise County, Arizona

Tiger Salamander *Ambystoma tigrinum* ..... 1  
Couch's Spadefoot *Scaphiopus couchii* .. 9 + 100 est. emerging  
New Mexico Spadefoot *Spea multiplicata* ..... 1  
Common Kingsnake *Lampropeltis getula* ..... 1  
Gopher Snake *Pituophis catenifer* ..... 2  
Night Snake *Hypsiglena torquata* ..... 3  
Western Diamondback Rattlesnake *Crotalus atrox* ..... 3  
Mojave Rattlesnake *Crotalus scutulatus* ..... 10

### 6 August 1996

10:00–14:00 hrs

Bootlegger Trail, Rustlers Park to Barfoot Lookout

Chiricahua Mountains

Cochise County, Arizona

Yarrows Spiny Lizard *Sceloporus jarrovii* ..... 17

19:00–24:00 hrs

Highway 80

Cochise County, Arizona

Couch's Spadefoot *Scaphiopus couchii* ..... 6  
Ornate Box Turtle *Terrapene ornata* ..... 2  
Lesser Earless Lizard *Holbrookia maculata* ..... 1  
Checkered Garter Snake *Thamnophis marcianus* ..... 1  
Mojave Rattlesnake *Crotalus scutulatus* ..... 3

7 August 1996

Observations made while processing snakes in Idlewild Campground, Chiricahua Mountains, Cochise County, Arizona

Desert Grassland Whiptail *Cnemidophorus uniparens* ..... 1  
 Yarrows Spiny Lizard *Sceloporus jarrovii* ..... 5

17:30–20:00 hrs  
 Geronimo Trail  
 Cochise County, Arizona

Great Plains Toad *Bufo cognatus* ..... 1  
 Western Diamondback Rattlesnake *Crotalus atrox* ..... 2  
 Blacktail Rattlesnake *Crotalus molossus* ..... 2

20:00–24:00 hrs  
 Highway 80  
 Cochise County, Arizona

Colorado River Toad *Bufo alvarius* ..... 1  
 Couch's Spadefoot *Scaphiopus couchii* ..... 3  
 New Mexico Spadefoot *Spea multiplicata* ..... 1  
 Coachwhip *Masticophis flagellum* ..... 1  
 Longnose Snake *Rhinocheilus lecontei* ..... 1  
 Checkered Garter Snake *Thamnophis marcianus* ..... 1  
 Western Diamondback Rattlesnake *Crotalus atrox* ..... 3  
 Mojave Rattlesnake *Crotalus scutulatus* ..... 1

8 August 1996

17:00–22:00 hrs  
 Highway 80  
 Cochise County, Arizona

Common Kingsnake *Lampropeltis getula* ..... 1  
 Western Diamondback Rattlesnake *Crotalus atrox* ..... 1  
 Mojave Rattlesnake *Crotalus scutulatus* ..... 9

9 August 1996

10:00–13:00 hrs  
 Barfoot Park, Chiricahua Mountains  
 Cochise County, Arizona

Yarrows Spiny Lizard *Sceloporus jarrovii* ..... 122  
 Twin-spotted Rattlesnake *Crotalus pricei* ..... 3

Observations made while processing snakes in Herb Martyr Campground, Chiricahua Mountains, Cochise County, Arizona

Striped Plateau Lizard *Sceloporus virgatus* ..... 2

17:00–22:00 hrs  
 Highway 80  
 Cochise County, Arizona

Couch's Spadefoot *Scaphiopus couchii* ..... 3

New Mexico Spadefoot *Spea multiplicata* ..... 2  
 Night Snake *Hypsiglena torquata* ..... 1  
 Mojave Rattlesnake *Crotalus scutulatus* ..... 2

10 August 1996

18:30–21:00 hrs  
 Geronimo Trail  
 Cochise County, Arizona

Great Plains Toad *Bufo cognatus* ..... 7  
 Madrean Alligator Lizard *Elgaria kingii* ..... 1  
 Ringneck Snake *Diadophis punctatus* ..... 1  
 Western Diamondback Rattlesnake *Crotalus atrox* ..... 5

11 August 1996

09:30–12:00 hrs  
 Barfoot Park

Yarrows Spiny Lizard *Sceloporus jarrovii* ..... 89

15:30–20:00 hrs  
 Geronimo Trail

Great Plains Toad *Bufo cognatus* ..... 2  
 Yarrows Spiny Lizard *Sceloporus jarrovii* ..... 1  
 Tree Lizard *Urosaurus ornatus* ..... 1  
 Gopher Snake *Pituophis catenifer* ..... 2  
 Longnose Snake *Rhinocheilus lecontei* ..... 1  
 Blackneck Garter Snake *Thamnophis cyrtopsis* ..... 1  
 Western Diamondback Rattlesnake *Crotalus atrox* ..... 2

20:00–23:30 hrs  
 Highway 80  
 Cochise County, Arizona

Couch's Spadefoot *Scaphiopus couchii* ..... 6  
 Western Diamondback Rattlesnake *Crotalus atrox* ..... 1  
 Mojave Rattlesnake *Crotalus scutulatus* ..... 3  
 Massasauga *Sistrurus catenatus* ..... 1

12 August 1996

Observations made while processing snakes in Herb Martyr Campground Chiricahua Mountains

Yarrows Spiny Lizard *Sceloporus jarrovii* ..... 3  
 Sonoran Spotted Whiptail *Cnemidophorus sonora* ..... 1

19:30–21:00 hrs  
 Geronimo Trail

Ornate Box Turtle *Terrapene ornata* ..... 1  
 Gopher Snake *Pituophis catenifer* ..... 1  
 Western Diamondback Rattlesnake *Crotalus atrox* ..... 2

21:00–23:00 hrs  
 Highway 80  
 Cochise County, Arizona

Western Hognose Snake <i>Heterodon nasicus</i> .....	1
Western Diamondback Rattlesnake <i>Crotalus atrox</i> .....	1
Mojave Rattlesnake <i>Crotalus scutulatus</i> .....	5

14 August 1996

18:00–19:00 hrs  
 Geronimo Trail  
 Cochise County, Arizona

Gila Monster <i>Heloderma suspectum</i> .....	1
Western Diamondback Rattlesnake <i>Crotalus atrox</i> .....	1

21:30–23:00 hrs  
 Highway 80  
 Cochise County, Arizona

Couch's Spadefoot <i>Scaphiopus couchii</i> .....	3
Checkered Garter Snake <i>Thamnophis marcianus</i> .....	1
Western Diamondback Rattlesnake <i>Crotalus atrox</i> .....	1

15 August 1996

19:15–23:00 hrs  
 Highway 80  
 Cochise County, Arizona

Couch's Spadefoot <i>Scaphiopus couchii</i> .....	4
Glossy Snake <i>Arizona elegans</i> .....	1
Longnose Snake <i>Rhinocheilus lecontei</i> .....	2
Western Diamondback Rattlesnake <i>Crotalus atrox</i> .....	4
Mojave Rattlesnake <i>Crotalus scutulatus</i> .....	4

16 August 1996

09:00–11:00 hrs  
 Ash Springs Trail  
 Chiricahua Mountains  
 Cochise County, Arizona

Madrean Alligator Lizard <i>Elgaria kingii</i> .....	1
Yarrows Spiny Lizard <i>Sceloporus jarrovi</i> .....	15
Striped Plateau Lizard <i>Sceloporus virgatus</i> .....	4
Tree Lizard <i>Urosaurus ornatus</i> .....	1

24:00–01:30 hrs  
 Highway 80  
 Cochise County, Arizona

Couch's Spadefoot <i>Scaphiopus couchii</i> .....	6
Common Kingsnake <i>Lampropeltis getula</i> .....	3
Gopher Snake <i>Pituophis catenifer</i> .....	3
Longnose Snake <i>Rhinocheilus lecontei</i> .....	2
Checkered Garter Snake <i>Thamnophis marcianus</i> .....	3
Night Snake <i>Hypsiglena torquata</i> .....	2
Western Diamondback Rattlesnake <i>Crotalus atrox</i> .....	7

Mojave Rattlesnake <i>Crotalus scutulatus</i> .....	12
Massasauga <i>Sistrurus catenatus</i> .....	2

17 August 1996

16:30–17:30 hrs  
 Highway 80  
 Cochise County, Arizona

Ornate Box Turtle <i>Terrapene ornata</i> .....	1
Mojave Rattlesnake <i>Crotalus scutulatus</i> .....	1

18:30–20:30 hrs  
 Geronimo Trail  
 Cochise County Arizona

Great Plains Toad <i>Bufo cognatus</i> .....	4
Great Plains Skink <i>Eumeces obsoletus</i> .....	1
Madrean Alligator Lizard <i>Elgaria kingii</i> .....	1
Western Diamondback Rattlesnake <i>Crotalus atrox</i> .....	2
Blacktail Rattlesnake <i>Crotalus molossus</i> .....	1
Mojave Rattlesnake <i>Crotalus scutulatus</i> .....	1

21:30–23:30 hrs  
 Highway 80  
 Cochise County, Arizona

Tiger Salamander <i>Ambystoma tigrinum</i> .....	9
Great Plains Toad <i>Bufo cognatus</i> .....	1
Colorado River Toad <i>Bufo alvarius</i> .....	1
Couch's Spadefoot <i>Scaphiopus couchii</i> .....	7
New Mexico Spadefoot <i>Spea multiplicatus</i> .....	5
Desert Grassland Whiptail <i>Cnemidophorus uniparens</i> .....	1
Common Kingsnake <i>Lampropeltis getula</i> .....	1
Gopher Snake <i>Pituophis catenifer</i> .....	3
Night Snake <i>Hypsiglena torquata</i> .....	2
Mojave Rattlesnake <i>Crotalus scutulatus</i> .....	3

CONCLUSION

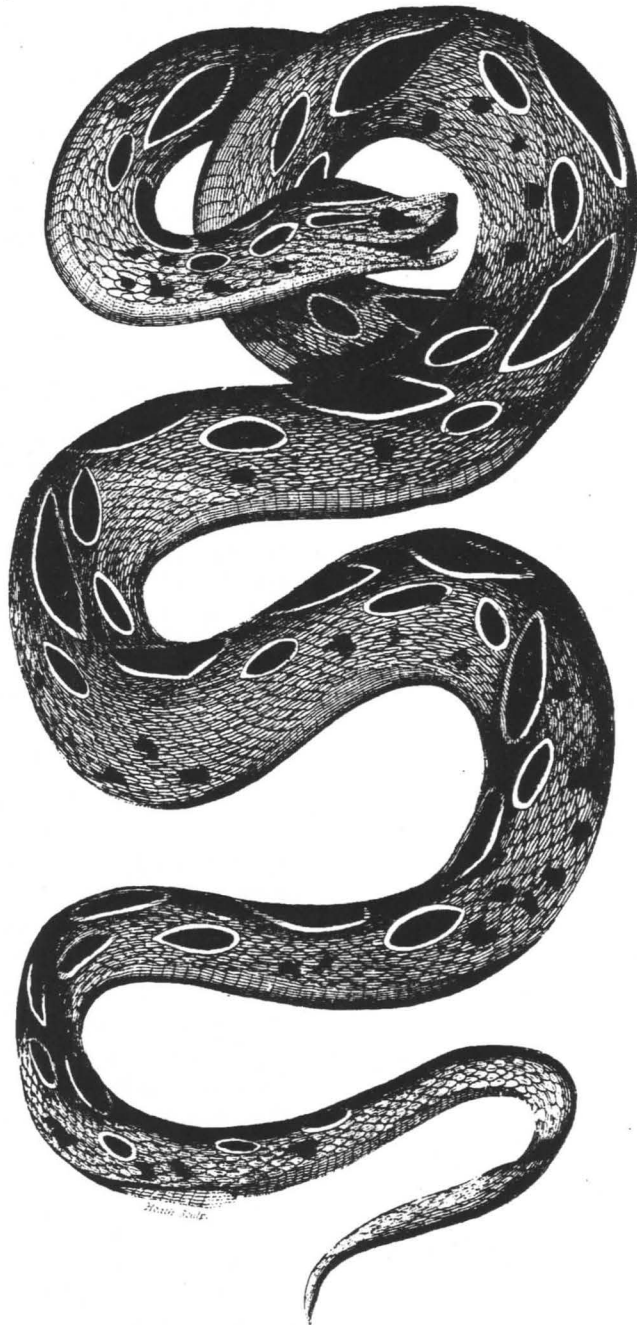
The 28 counts made provided a total of thirty species and 627 individuals. Other species, or individuals observed but not included in the counts are: Sonoran Coral Snake *Micruroides euryxanthus* (1), Cochise County, Arizona; Chihuahuan Spotted Whiptail *Cnemidophorus exsanguis* (1), Texas Horned Lizard *Phrynosoma cornutum* (1), Sonoran Mountain Kingsnake *Lampropeltis pyromelana* (1), Blacktail Rattlesnake *Crotalus molossus* (1), Ridgenose Rattlesnake *Crotalus willardi* (3), Animas Mountains, Hidalgo County, New Mexico. These observations bring the total count to 35 species and 635 individuals.

ACKNOWLEDGMENTS

The authors would like to thank the following for their contributions in the field; Andy Holycross and both his Animas Mountains and Cochise County field crews, and Barney Tomberlin of Portal, Arizona.

### KHS 1997 SPRING FIELD TRIP TO Z-BAR RANCH

The 1997 Kansas Herpetological Society Annual Spring Field Trip will be held from 2–4 May at the Z-Bar Ranch in the beautiful southern Flint Hills. Be sure and mark these dates on your calendar. More information will appear in the March KHS Newsletter. Those desperate to know more in advance can contact KHS Field Trip Chairperson Larry L. Miller at 1 (913) 836-2119 or Karen Toepfer, KHS Treasurer, at 1 (913) 628-1437. The traditional KHS Amphibian and Reptile Count will be held, participants will temporarily become lost, and fun will be had by all.



## GREEN LACERTA REDISCOVERED IN TOPEKA, KANSAS

JAMES GUBANYI  
2501 Burnett Road  
Topeka, Kansas 66614

On 2 August 1996, a lizard that had been caught earlier in the day was brought to me for identification. I identified the specimen, which was an adult with a snout-vent length of 9.7 cm, as a Green Lacerta, *Lacerta viridis*. A friend, Jerry Jones, had caught the reptile in the backyard of a home in a residential area of southwest Topeka. In past decades, these lizards had been captured in this general vicinity, and a colony of them had once become established in this area of the city. The original members of this colony had been examples that had escaped (or been released) sometime in the 1950's from a biological supply warehouse, called Quivera Specialties, owned by the late Charles E. Burt. I had caught these lizards myself in Topeka until the late 1970's. Although I had heard rumors from reliable sources regarding the continued presence of the Green Lacerta in southwest Topeka, I had not seen a live example nor heard of any actually being caught there in almost fifteen years. Collins (1974, 1981, 1993) considered the Green Lacerta, which is indigenous to Europe, as an introduced species in Kansas. Conant and Collins (1991) noted the Topeka introduction, but because no recent specimens were available, they did not provide an account of this lizard. The current specimen is thus a significant find since its discovery confirms the continued presence of *Lacerta viridis* in this southwestern residential area of Topeka, Kansas. I am currently maintaining this animal alive; a color slide voucher has been deposited at the Natural History Museum, The University of Kansas, Lawrence (KU Color Slide 11235).

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## THIRD GRADERS CONDUCT AMPHIBIAN AND REPTILE FIELD STUDY

LARRY L. MILLER  
Science Chairperson  
Topeka Collegiate School  
2200 S.W. Eveningside Drive  
Topeka, Kansas 66614

It was warm and sunny, and reptiles were on the move! That is the best way to describe Thursday afternoon, 10 October 1996, near Colby Creek just to the north of Wakarusa, Kansas, in southern Shawnee County. It was also the afternoon that thirty Topeka Collegiate School 3rd graders along with several parents and teachers conducted a 1.5 hour herpetological survey of the area.

It did not take long to find the first critter. Even before all of the children were out of the cars, one of the students spotted an adult Ornate Box Turtle walking near a small pond. A few minutes later two Common Garter Snakes were discovered under a large piece of plywood along with several Ringneck Snakes. Next, one of the adults almost stepped on a young Racer. What an adventure!

Between 1300 and 1430 hours examples of thirteen species of amphibians and reptiles had been located and identified on the ten-acre area researched. For some of the third graders, it was the first time that amphibian and reptiles had been observed in the wild. It was the first opportunity for some of the adults, as well as some of the 3rd graders, to touch a live snake. Much of the excitement was captured on film.

The thirteen species encountered included Plains Leopard Frogs, Bullfrogs, Northern Cricket Frogs, Common Snapping Turtles, Ornate Box Turtles, Painted Turtles, Great Plains Skinks, Five-lined Skinks, Racers, Eastern Rat Snakes, Ringneck Snakes, Northern Water Snakes, and Common Garter Snakes. The animals were returned to the wild before the group returned to their school. The young herpetologists had lots of stories to tell their parents and friends that Thursday evening.



## BOOK REVIEW

*Reptiles of North Carolina* by William E. Palmer and Alvin L. Braswell. University of North Carolina Press, Chapel Hill. xiii + 412 pp. 25 September, 1995. Cloth. \$39.95.

This excellent volume honors two North Carolina's greats in the field of herpetology.

The book is organized into two parts. The Introduction includes a three-page introduction into the physiographic and provinces and distribution of reptiles within the state, Historical Account, Materials and Methods, Species of major concern, conservation ethics, species and subspecies of uncertain occurrence, a note on subspecies, checklist of reptiles of North Carolina, and taxonomic keys to the reptiles of North Carolina; followed by species accounts, tables, list of herpetological societies, glossary, literature cited, and an index. The cover is certainly an eye-catcher, with its brilliant green cover showing outstanding color figures of *Eumeces inexpectatus*, *Kinosternon subrubrum*, *Thamnophis sirtalis* along with subdued illustrations of *Cemophora* and *Ophisaurus*, which are also used as feature figures in the text. I was greatly impressed with the ivory colored paper, which is non-glossy and certainly more relaxing to the eyes when reading under artificial or natural light.

The introduction gives an excellent overview of the physiographic provinces along with a detailed coverage of the historical literature relating to the herpetofauna from 1588 to 1993. The authors have made a special effort to examine all the available specimens of North Carolina reptiles in both private and institutional collections. Although they have not as yet been reported from the state (but are reported from adjacent states), five species and five subspecies are included in the identification key. The species keys are well-illustrated by external features, and should prove an extremely helpful feature for the layman in identification.

Some 70 species of reptiles have been reported from the state. Each species account includes excellent drawings by Renaldo Kuhler of the external features of the species, as well as a distribution map showing localities within the counties, with solid symbols representing localities supported by preserved specimens, while open circles show supplemental localities recorded in the text, by not supported by specimens. A small map of the United States shows a shaded overall view of the general distribution.

The main body of the text is the species accounts, which range from three to four pages in length, including the scientific name, brief description of the species, remarks on variation, distribution within the state, habits and habitat, along with remarks regarding conservation measures. The authors rely heavily on unpublished and personal communication sources for valuable information, which makes this book even more delightful reading. Also, the book is

richly illustrated by appropriate photographs and drawings.

The authors mentioned that, while this book was in press, Seidel (1994) concluded that the turtles *Pseudemys concinna* and *P. floridana* represent a single species, although the authors use the subspecific names *Pseudemys c. concinna* and *P. f. floridana*.

A 111 page section related to tables on measurements; sexual and ontogenetic variation; females, eggs, and hatchlings; geographic variation in scalation; individual and sexual variation; variation in numbers of scale rows at midbody, and tail; and food records for species cited in the text; along with a glossary of technical terms, literature cited, and index round out this volume.

This book is flawless in errors, and should be part of the library of anyone interested in the herpetofauna of the eastern United States, and especially anyone attempting to complete a state survey. I highly recommend this book and congratulate Palmer and Braswell, along with Kuhler, for a masterful work.

## LITERATURE CITED

- Seidel, M. 1994. Morphometric analysis and taxonomy of cooter and red-bellied turtles in the North American genus *Pseudemys* (Emydidae). *Chelonian Conserv. Biol.* 1: 117-130.

—Harlan D. Walley  
Department of Biology  
Northern Illinois University  
DeKalb, Illinois 60115

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