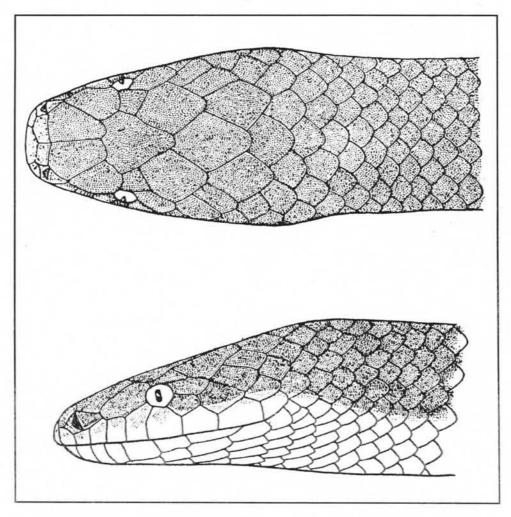
BULLETIN =

of the

Chicago Herpetological Society



Volume 28, Number 5 May 1993



The sunbeam snake, Xenopeltis unicolor, is very easy to maintain in captivity according to Merel J. Cox's article in this issue. The drawing is from The Fauna of British India, Ceylon and Burma, Including the Whole of the Indo-Chinese Subregion, Reptilia and Amphibia, Volume III—Serpentes by Malcolm A. Smith, 1943.

BULLETIN OF THE CHICAGO HERPETOLOGICAL SOCIETY

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Some Notes on the Sunbeam Snake, Xenopeltis unicolor

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The sunbeam snake has a wide range extending from northern Burma and southern China through mainland Southeast Asia into both Malaysian and Indonesian Borneo and the islands of Indonesia as far east as Sulawesi. It is semifossorial and is often found under debris and on the surface near human habitation. In Thailand it seems to be a common species in lowland areas and has been found at elevations up to 500 meters. I have found several specimens on the lawn of my home in Bangkok.

This snake's common names, "iridescent earth snake" and "sunbeam snake," are quite appropriate. Its dark brown or purplish-black dorsal color displays various colors when struck by sunlight. Few would consider it a beautiful snake, but its iridescent quality gives it moments of beauty.

Xenopeltis unicolor is an extremely docile snake. Malcolm Smith wrote many years ago that he had never known the species to bite but noted it vibrates its tail with extraordinary speed when excited. Neither I nor any of my colleagues have ever known one to bite, but I have never observed the tail vibration mentioned by Malcolm Smith.

The species is very easy to keep in captivity. Originally, I kept specimens on a dirt substrate and they invariably burrowed under it. More recently, I moved one specimen to a newspaper substrate where it seems quite content, having made no attempt to hide under the newspaper. Most eat readily in captivity and will accept a wide variety of prey. The specimen I am presently keeping has eaten chicks, ducklings, mice, guinea pigs, a kitten and a frog. I have never offered it a snake, but I am certain snakes would be accepted readily. Small prey is swallowed alive but if prey is large enough to offer effective resistance, it is constricted until dead and then eaten. The union of many of the bones of the skull enables

this species to burrow effectively but limits its capacity to swallow large prey. The largest prey consumed by any specimen I have kept represented only 18 percent of the snake's body weight. By way of contrast, I have observed a *Python reticulatus* and *Vipera russelli siamensis* swallow 80 and 72 percent of their body weights respectively with relative ease.

Sunbeam snakes are oviparous, with clutches varying from 6 to 17 eggs. The hatchlings resemble adults except for the white color around their necks which disappears with age. Mature females average one meter in total length, males a little less. Tails are extremely short, comprising only eight or nine percent of the total.

On 25 January 1991 I acquired an adult specimen from the Thai Red Cross in Bangkok. At that time the snake had a snout-vent length of 109 cm, a tail length of 9 cm and weighed 684.4 grams. At the time of this writing, its snout-vent length is 115 cm, the tail length remains the same at 9 cm, and it weighs 717.2 grams. During the 23 months this specimen has been in my care it has eaten 30 mice, 20 guinea pigs, 5 chickens, 4 ducklings and a kitten. In roughly 690 days, the snake has eaten a prey animal on an average of every 11.5 days. Although we can only guess, such a frequency of eating is probably higher than would occur in the wild. However, this specimen seems to have thrived on this feeding schedule. It has shed 14 times, an average on once every 1.6 months. A Naja kaouthia has been in my collection for 22 months and is on a nearly identical feeding schedule. It has shed 13 times, an average of once per 1.7 months.

This interesting, harmless and docile snake is ideal for the private collector just starting a collection of snakes. Unfortunately, the sunbeam snake will be increasingly difficult to acquire since it is now protected within much of its range.

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Notes on Captive Propagation and Husbandry of the Red-tail Boa Constrictor, *Boa constrictor* ssp.

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History

In 1979 Bill Rieschl, a friend of the author, acquired as hatchlings five red-tail boas, possibly of Brazilian origin. Four, two males and two females, grew quickly to breeding size. The fifth, a male, slowed growth at four feet and remains small today. The two pair were then given on breeding loan to a herpetoculturist where they remained for several years. No reproductive activity was reported and they were eventually acquired by the author on breeding loan on 1 December 1989.

Male 1. Typical markings, overall dark coloration, good disposition.

Female 2. Atypical markings, no "eyebrows," light color, short snout, good disposition.

Male 3. Very long spaces between the brown saddles, light coloration, nervous disposition, recalcitrant feeder.

Female 4. Typical markings, overall dark coloration, highly aggressive.

General Condition of Animals

All eight to ten feet long, slightly under optimum weight, ectoparasites (mites), several old burn scars indicating contact with light bulb or other heat source.

Remedial action: all sprayed with pyrethrin insecticide; a piece of Vapona pest strip (2,2 dichlorovinyl dimethyl phosphate) placed in each enclosure. All dosed with piperazine citrate capsules (40–60 mg/kg) placed in rats. Fed rats and rabbits ad libitum.

Husbandry

Males and females are housed separately from April to December in enclosures ranging from large aquaria to homemade wooden, glass-fronted boxes. Each enclosure has a pine shaving substrate, water bowl, hide box and overhead incandescent light. The communal breeding enclosure measures six feet long, by three feet wide, by four feet high. It has darkened hide areas, branches for climbing, and is lit by a 250-watt heat lamp (Figure 1).

Proper temperature regulation appears to be the most critical factor in achieving breeding success. According to some authors, temperature may effect sperm production in the male and ovulation in the female. For the first two breeding seasons I allowed the enclosures to cool normally through the fall months as the ambient room temperature decreased. This resulted in a summer temperature range of 80–95°F (from hide box to basking area) gradually decreasing to 75–85°F in the winter. I found this temperature fluctuation suitable for breed-



Figure 1. Communal enclosure during breeding season.

ing rainbow boas (*Epicrates cenchria*). This regimen was changed in the third breeding season after reading Ross and Marzec (1990). Ross suggests a diurnal fluctuation in temperature beginning several weeks before the breeding season and continuing several weeks into the season. Gradually the temperature at night is reduced until a nighttime low of from 65 to 70°F is reached. Although so cool a temperature may cause the herpetoculturist some trepidation, the snakes do not seem to be adversely affected. Daytime high temperature should be brought up to 88–90°F. Ross cautions that temperatures above or below this range may inhibit reproduction, cause birth defects or cause illness.

In early November I introduce the females to the communal breeding enclosure and allow them to become acclimated. I prefer rabbits for their last few meals, as rabbits seem to fatten the snakes more quickly than rats. Though sexual activity does not seem to begin before late January or early February, I begin introducing the males in December. If the males show no interest in the females within two or three days they are removed and reintroduced the following week. I believe the presence of the males at this time may initiate ovulation in the females. When the males exhibit consistent precopulatory behavior (chin rubbing, spurring, tail search) they are allowed to remain with the females for the rest of the season.

Some authors recommend introducing the females to the males' enclosure and have had success with this approach (Huff, 1979). I prefer the opposite. These large snakes are not pets, and they resent being handled. Female 4 is downright nasty and must be restrained. This is traumatic to the snakes, especially when repeated every few days. Ovulating females may be injured by rough handling, but rough handling of the males may actually stimulate breeding activity (Ross and

Marzec, 1990:54).

Reproductive Chronology

First Breeding Season

Notes on reproductive behavior are biased toward evening and early morning, as the snakes were generally unobserved during the day.

January 1990:

No sexual activity noted.

15 February 1990:

Male 1 aggressive pursuit of male 3, 8:30 P.M. – 1:20 A.M. Apparent mating attempt.

20 February 1990:

Male 1 mating with female 2, 9:30 A.M. - 9:00 P.M.

21 February 1990:

Male 1 mating with female 2, 6:30 A.M. – 10:10 P.M.. No further sexual activity noted.

27 February 1990:

Female 4 swollen at midbody.

8 March 1990:

Female 4 keeps swollen area under heat lamp. Has eaten several small rats and a small rabbit.

30 March 1990:

Female 4, swelling reduced, but still large from midbody to vent. Refused food.

1 April 1990:

Female 4 seems uncomfortable, agitated. Changes position



Figure 2. Female 4, pregnant. Swelling from mid-body to tail. Note white skin between scales. 30 May 1990.

every 15 minutes. 95°F under heat lamp, 80°F in corners.

17 April 1990 - 30 May 1990:

Female 4 continues to swell. White skin visible between scales (Figure 2). Refuses food.

23 June 1990:

Female 4. Abdomen reduced in size. White skin between scales no longer visible.

9 July 1990:

Female 4 parturition. Gestation 138 days. Eighteen unfertilized ova, two premature but live young. Very large yolk masses attached (6" x 4" x 1", Figure 3). Both placed in incubator at 85°F, 100% humidity. Membrane slit between blood vessels and heads removed from amniotic sac to allow neonates to breathe.

10 July 1990:

Both failed to breathe normally, both died.

Second Breeding Season

9 December 1990 - 3 February 1990: Periodic introduction of males to females in communal enclosure. No sexual activity noted.

4 February 1991:

Male 3 mating with female 2, 2:30 P.M. Male 3 mating with female 4, 7:00 A.M.

5 February 1991:

Male 1 mating with female 4, 2:55 A.M. – 7:30 A.M. Male 3 mating with female 4, 9:00 P.M.

6 February 1991:

Male 3 mating with female 4, 3:00 A.M. Probably continuous from previous night.

8 February 1991:

Male 3 mating with female 2, 10:00 P.M.

9 February 1991

Male 3 mating with female 2, 6:00 A.M. Probably continuously from the previous night.

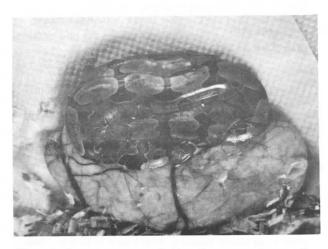


Figure 3. Premature neonate, first breeding season. Large yolk mass with attendant blood supply. 10 July 1990.

13 February 1991:
Male 3 mating with female 4, 10:00 P.M. – 2:00 A.M.

14 February 1991: Male 1 mating with female 2, 11:00 P.M.

15 February 1991: Male 3 mating with female 2, 6:10 P.M.

20 February 1991: Male 3 mating with female 4, 5:57 P.M.

22 February 1991: Male 3 mating with female 4, 8:00 P.M.

25 February 1991: Male 3 mating with female 4, 7:00 A.M.

3 March 1991: No sexual activity since 25 February. Females isolated.

30 March 1991:

No signs of swelling on either female. Female 2 ate four large rats; female 4 ate three large rats.

April-June 1991:
All snakes feeding normally. No unusual activity.

23 June 1991:
Female 4 parturition, 10:30 A.M.. Gestation 118-139 days.
Unexpected birth. No swelling or loss of appetite noted.
Twenty-eight unfertilized ova; two premature but live young. Yolk masses on neonates smaller than previous year (4" x 2" x 1"). Once again, no respiratory activity.

24 June 1991: Both deceased.

Third Breeding Season
(Husbandry change for third year

(Husbandry change for third year – nighttime low allowed to drop to 68°F.)

10 December 1991:Male 3 tail search on female 4. No mating.

15 December 1991:Male 1 rapid tongue movements on female 4. No mating.

22 December 1991:

Male 3 chin rubbing on female 4. No mating.

24 December 1991:

Male 3 tail search on female 2. No mating.

1 January 1992:Female 4 very swollen. Irregular bulges on sides at midbody. Eyes clearing pre-ecdysis. No mating seen.

2 January 1992:Female 4 ecdysis. Males very aroused, active. No mating.

6 January 1992: Group sprayed with cold (55°F) water. Male 3 shows immediate interest in female 4. No mating.

1 February 1992
 Male 1 tail search female 2, 1:00 P.M. – 6:30 P.M. Male 1 mating with female 2. Right hemipenis visible (Figure 4).

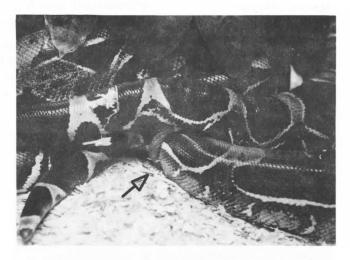


Figure 4. Copulation, third breeding season. Arrow points to clearly visible hemipenis. 1 February 1992.

8 February 1992: Male 3 mating with female 2, 6:00 P.M.

10 February 1992: Male 3 mating with female 2, 7:00 A.M. Probably continuous from previous night.

18 February 1992: Male 3 mating with female 4, 5:15 P.M.

23 February 1992: Male 3 mating with female 4, 10:45 P.M.

24 February 1992:
 Male 3 mating with female 4, 12:30 P.M. – 10:00 P.M.
 Still mating at 10:00 P.M.

27 February 1992:
Male 3 mating with female 2, 5:15 A.M. – 7:30 A.M. Still mating at 7:30 A.M.

1 March 1992: Male 1 mating with female 4, 2:15 A.M. Male 1 mating with female 2, 8:45 A.M.

8 March 1992: No further sexual activity noted. All snakes isolated.

9 March 1992: Female 4 swollen midbody. Enclosure temperature 85–90°F. Large hide box not utilized; female basks under incandescent light. Food withheld.

31 March 1992: Female 2. No swelling. Food offered. Normal feeding resumed.

21 August 1992:
Female 4 parturition (Figure 5), 10:00 A.M. Gestation 173–184 days. Twelve unfertilized ova. One ovum appeared dry and hard and may have been from previous season. Eight neonates.

Five young born full term, very small umbilical cord and no yolk attached. Umbilicals tied on two where bleeding



Figure 5. Parturition, third breeding season. Female 4, neonates and unfertilized ova. 21 August 1992.

seemed excessive.

One neonate with large swollen umbilical and large blood supply. Chord tied and cut.

One neonate very premature. 3" x 3" x 2" yolk mass attached. Removed from membrane immediately, chord tied and yolk severed. Respiration normal. Placed in chick incubator at 85–87°F, 100% humidity. Striping of pattern may indicate neonate was chilled during gestation. One neonate with severe birth defects. Thoracic area open. Heart and other organs outside the body. Euthanized and preserved.

22 August 1992:

Six neonates doing well, 9:59 A.M. (Figure 6). Umbilicals drying and shrinking. Strings on three tied umbilicals have fallen off as umbilicals shrunk.

Premature neonate in incubator frequently rests inverted, ventral side up. Rights itself when misted with water, but seems uncoordinated.

30 August 1992: Six first ecdyses.

28 September 1992:

Six eating, mouse pinkies to hoppers. Premature neonate has refused food, no ecdysis, has difficulty maintaining equilibrium. Movements lack coordination. No tongue movements seen. Tongue, or tongue musculature may not be fully formed.

17 October 1992:

Premature neonate first ecdysis. Force-fed adult mouse head. Coordination improving.

25 October 1992:

Female 2 ate four medium rats.

29 October 1992:

Female 2 parturition, 6:00 A.M. Gestation 242–271 days. Unexpected birth. No swelling or loss of appetite noted. Three unfertilized ova, fourteen neonates.

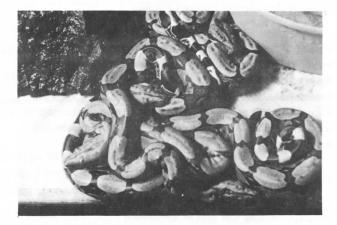


Figure 6. Neonates, third breeding season. 22 August 1992.

Nine neonates stillborn. Three died shortly after birth. One lived twelve hours and one twenty-four hours. Premature neonates exhibited all sizes of unabsorbed yolk masses from small to large. Striping of pigmentation on only two of fourteen. One had malformation of right eye.

Observations and Unresolved Problems

1) Ovulation-Fertilization

The swelling of female 4 on 1 January 1992 prior to mating may indicate ovulation at this time. Female 4 has a small percentage of her eggs fertilized.

First season: 20 ova, 2 fertilized (10%) Second season: 30 ova, 2 fertilized (7%) Third season: 20 ova, 8 fertilized (40%)

At all three births the young were born first and followed by the infertile eggs. This may indicate the sperm are not traveling far enough up the oviduct, possibly because of a problem of ovulation-copulation timing whereby the first eggs block the passage of sperm to the eggs behind. Since female 2 had 82% of her eggs fertilized, I have to believe the sperm are not defective.

2) Gestation Length

Female 4 full term, viable neonates the third season correspond to a longer gestation period.

First Season: 138 days Second Season: 118-139 days Third Season: 173-184 days

Female 2's gestation period in the third season is very long, but within normal parameters (Ross and Marzec, 1990:212). Since female 2 was not known to be pregnant, she was fed normally and maintained at 75–85°F. These temperatures are suboptimal for gestation.

Bill Rieschl raised a question as to whether ten-year-old female boas who become pregnant for the first time may have difficulty carrying their young full term.

3) Food Consumption During Gestation

Female 4 ate sparingly early during first season gestation which resulted in two premature neonates. She ate well during second season gestation as pregnancy was not known, and she never refused food. This again resulted in two premature neonates. In the third season she was not fed, and the results were six healthy neonates, one premature, and one teratogenic neonate. Female 2 ate normally during the third season and delivered 14 premature stillborn and dying neonates.

4) Stress and Gestation

In the third season female 4's enclosure was kept covered and cage cleaning was kept to a minimum. The water dish was not even cleaned until the snake was in the hide box.

Conclusions

Large, healthy, gravid female boas do not necessarily appear gravid, nor do they always lose their appetite as reported by other herpetoculturists. Limited experience indicates food consumption during gestation may interrupt gestation or bring on premature parturition.

If copulation has been observed, one should presume the female to be gravid and treat her accordingly. Withhold food, stress the snakes as little as possible, maintain a high (85–90°F) temperature, and be patient. Gestation could take eight months or more.

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Sexual Activity and Copulation at Low Temperature in the Red-eared Slider, *Trachemys scripta elegans* (Wied, 1839)

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Cagle (1946) and Ernst and Barbour (1972) state that pond sliders become inactive when water temperatures drop below 10°C. Nevertheless, Anton (1987) found a large female Trachemys scripta elegans who was walking slowly across the ice on an ice-covered lagoon. The air temperature was 5°C (41°F). He did not measure the cloacal temperature, but supposed that the turtle was warming up gradually in the bright sun. Occasionally I have seen captive sliders moving under ice, and on 29 January 1989 I witnessed a pair of red-eared sliders (male 144 mm carapace length, 430 g; female 172 mm carapace length, 940 g) exhibiting sexual behavior with the male slowly vibrating toward the female. I measured the cloacal temperature of the male using a CRESTA digital thermometer connected to a thermocouple, and found it to be 5.4°C. The water temperature was 5°C. On 28 November 1991, at 1600 h, the same pair was found in copulation. The turtles were taken out of the water for one moment to ascertain intromission of the penis. They were found separated at 1635 h, at which time the cloacal temperature of the female was 5.9°C. The cloacal temperature of the male was not measured Henry Janssen Witte Leertouwersstraat 10b B-8000 Brugge Belgium

to avoid damaging the penis. The water temperature was 4.9°C. The weather was sunny with an air temperature of 8°C. It is interesting to note that although several pairs of redeared sliders were kept together in the same outdoor enclosure, this male showed a preference for the same female. This behavior is also described by Ballasina and Ballasina (1981) who bred Trachemys scripta elegans in captivity and noticed partner bonding in some pairs. Our observations indicate that: Trachemys scripta elegans can be active, court and copulate at temperatures below 10°C; copulation can take place outside the normal copulation period which according to Carr (1952) ranges from March until October; Trachemys scripta elegans is, under certain conditions, able to attain a body temperature slightly higher than the surrounding water. Most likely the additional heat is obtained by underwater basking. Although these observations have been made on specimens which are kept in captivity and outside their normal distribution range, we believe that their living conditions come sufficiently close to those of Trachemys scripta elegans in its northern distribution range for these observations to be of value.

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Book Review: Catálogo de Anfibios y Reptiles del Museo de Zoología, Facultad de Ciencias, Universidad Nacional Autonoma de México by Oscar A. Flores Villela, Efrain Hernández Garcia, and Adrián Nieto Montes de Oca (with the collaboration of Roberto Arias Rueda and Antonio Muñoz Alonso). 1991. Coordinación de Servicios Editoriales, Facultad de Ciencias, UNAM, México, D.F. Serie de Catálogos del Museo de Zoología "Alfonso L. Herrera," Catálogo No. 3. [ix], 222 pp., 4 figs., 4 tables. Softbound, 21.5 x 16.5 cm. [Obtainable from Museo de Zoología, Facultad de Ciencias, UNAM, Apartado Postal 70-399, México, Distrito Federal, 04510 México, for \$3 shipping and handling.]

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The recent phenomenal growth of indigenous herpetology in Mexico is nowhere more apparent than in the present volume, based on activities of merely the last 12 years, and primarily a product of the leadership, enthusiasm, vision and energy of the first author. It is an ambitious review, listing by scientific name 5911 specimens, each with its locality, habitat (where known) and collector. Since the deadline for the list was reached, 2081 additional specimens were catalogued, making the total at final writing 7922 specimens in the institutional catalog. Those additional specimens are not included in the published catalog. Some 432 species-group taxa are treated, including those identified to genus but not to species (e.g., "Sceloporus sp."), and some subspecies (but not all): 98 Anura, 31 Caudata, 1 Gymniophona, 1 Amphisbaenia, 160 Sauria, and 141 Serpentes. There are no descriptions. Every state and territory of the country is represented, most extensively Guerrero, Chiapas and Veracruz. Unique are two graphs, one showing correlation of specimens with vegetation type, and the other showing preponderance of the various types represented (deciduous, pine and oak-pine forests have been the source of more specimens than all other habitats combined). Such extensive records of habitat are the product of trained students, who have been the major source of the material in the collection.

In addition to the catalog proper, there is a 27-page introduction, including a preface by Jorge Llorente, and nine sections: (1) the history of the herpetological collection, sources of specimens and finances, publications and current projects; (2) objectives and services of the collection; (3) organization, functioning and management of the collection; (4) its content, correlated geographically and phytologically; (5) the divisional library, covering formation and content; (6) the future of the collection; (7) literature cited; (8) acknowledgments; and (9)

description of structure of the catalog that follows.

Catalogs of sizeable institutional collections of reptiles and amphibians are few and far between, for good reason: they are extremely labor-intensive and involve so much detail and mandatory pigeon-holing that the opportunities for error are forbiddingly large. They seem worth the effort only when broadly synoptic (as was the case for the classic British Museum catalogs, which embraced not only that museum's possessions but all taxa then known, worldwide) or when knowledge is formative of a given area's biota (as is the case for Mexico). The present work is therefore commendable in making known to the general herpetological world something of the resources inherent in an important collection that would otherwise be meagerly known and therefore underutilized.

It is to be hoped that this catalog, and its objective of making the resources it documents known to and available for study by qualified personnel worldwide, will serve as a model for comparable catalogs for the same and other institutions. Only in that way can the materials for increase in knowledge, where knowledge is conspicuously limited, be utilized efficiently.

This is not to say that the catalog at hand could not have been improved. There are a few inconsistencies of statement, some mechanical errors and wrong identifications. Much space (hence expense) could have been saved by more extensive use of paragraphs, and less of rubrics standing alone. But these are matters that can be considered for the future. The work still stands as a unique, very important step toward the most revered goal of science: to add to, and share, knowledge. The authors are to be heartily congratulated for their bold step forward in that context.

In Memoriam: Michael Alton Morris, February 25, 1956 - April 4, 1993

One of Illinois' most knowledgeable herpetologists died recently in his hometown of Rantoul. Known to many members of the Chicago Herpetological Society for his work on the distribution, life history, and systematics of amphibians and reptiles in the state, Mike had contributed several articles to the Bulletin and presented lectures to the membership. Those who knew Mike well realized he was something of a prodigy, quiet but with a sharp sense of humor. His ability to learn and remember was extraordinary and his knowledge of the Illinois herpetofauna was without peer. Philip W. Smith, an influential mentor during his early years, was "astounded" by this twelve-year-old's knowledge of herpetology and general biology. He came to regard Mike as " . . . the person most knowledgeable about the status of Illinois amphibians and reptiles . . . " (Smith, 1986, A Naturalist in the Environmental Crisis, Carlton Press, Inc., New York). I was privileged to serve as Mike's graduate advisor, and am consoled by many memories of shared experiences. He is survived by his parents, Joseph and Rebecca Morris of Rantoul, two brothers, two sisters, and his wife Mary Beth.

After high school, Mike attended Parkland Community College, 1974-1975 and 1977-1978 (A.S.); the University of Illinois, Champaign-Urbana, 1975-1977; and Southern Illinois University at Carbondale, 1978-1987 (B.S., M.A., Ph.D. with majors in zoology). He was a member of Alpha Omega (Parkland Community College honor society) and was elected to associate (1979) and full (1985) membership in Sigma Xi (professional research honor society). He was active in student organizations and received important honors during his graduate studies. During 1980-1982, he served as president of the SIUC Zoology Club, received the Blackwelder Award in Zoology (for being an outstanding student scholar and teaching assistant), and was a graduate fellow. For his master's degree thesis, "Taxonomic status, reproductive biology, and larval life history of two unisexual forms of Ambystoma from Vermilion County, Illinois," the SIUC zoology faculty presented him the Richard Kudo Memorial Award for the outstanding thesis or dissertation of the year. His doctoral degree research, culminating in a dissertation entitled "Systematics and distribution of the northern water snake, Nerodia sipedon (Linnaeus), with comparisons to Nerodia fasciata (Linnaeus)," was aided by an SIUC Graduate School Dissertation Research Award during 1984-1985.

After graduation, Mike worked as an assistant research biologist at the Illinois Natural History Survey (1987–1989), as team leader of a long-term resource monitoring program through Western Illinois University, at Cuivre River Field Station (1989–1990), and as an instructor in biology, human anatomy, and physiology at Belleville Area College (1991–1992). His long-term goal was to return to the Illinois Natural History Survey, where he had worked as a student. He was a herpetological consultant for the Illinois Department of Transportation on several projects, and worked on others funded by the Missouri Department of Natural Resources and the Illinois department of Conservation. He supported professional organizations in herpetology, and was a member of the American

Society of Ichthyologists and Herpetologists, Chicago Herpetological Society, Herpetologist's League, Illinois State Academy of Sciences, and Society for the Study of Amphibians and Reptiles.

Mike's research interests were relatively broad within herpetology, and spilled over into ichthyology. Seventeen of his publications dealt with snakes, five with salamanders, four with turtles, two with anurans, one with lizards, and one reviewed a book on turtle research. He coauthored, with Philip W. Smith, the first account of the endangered and threatened herpetofauna of Illinois and, with Richard S. Funk and Smith, an annotated bibliography of Illinois herpetofauna covering the years 1960-1980. He collaborated with colleagues at the Illinois Natural History Survey, Larry M. Page and Brooks M. Burr, on four fish projects. Represented among his publications are collaborations with a variety of Illinois herpetologists and other zoologists: Ronald A. Brandon, Lauren E. Brown, Richard S. Funk, S. M. Meyer, Edward O. Moll, Mary Beth Morris, Philip W. Smith, and Stephen J. Walsh.

His articles and notes were published in a wide variety of places: American Midland Naturalist (vol. 107), Bulletin of the Chicago Herpetological Society (vols. 10,13,15,26), Chicago Academy of Science Natural History Miscellanea (No. 214), Copeia (vols. 1981,1984,1991), HISS News-Journal (vol. 1), Herpetologica (vol. 41), Herpetological Review (vols. 6,7,9,15,17,18), Illinois Department of Conservation (1981), Illinois Natural History Survey Biological Notes (136), Illinois Natural History Survey Bulletin (vol. 33), Illinois Natural History Survey Reports (no. 286), Journal of Herpetology (vols. 8,18), North Carolina State Museum of Natural History, Physiological Zoology (vol. 55), St. Louis Herpetological Society Newsletter (vols. 2,3), Transactions of the American Fisheries Society (vol. 106), and Transactions of the Illinois State Academy of Science (vols. 67,69,78,84). The following list of Morris' publications is intended to be complete, so I would appreciate learning of any omissions.

Publications of Michael A. Morris:

1973. Life history: *Thamnophis radix radix*. HISS News-Journal 1:185-186.

1974a. Notes on parturition in the midland brown snake, *Storeria dekayi*. Trans. Illinois St. Acad. Sci. 67:3-4.

1974b. An Illinois record for a triploid species of the *Ambystoma jeffersonianum* complex. J. Herpetol. 8:255-256.

1974c. Observations on a large litter of the snake *Storeria dekayi*. Trans. Illinois St. Acad. Sci. 67:359-360.

1975a. An unusual color variation of *Natrix kirtlandi*. St. Louis Herp. Soc. Newsletter 2:6-7.

1975b. Geographic distribution: *Storeria dekayi limnetes*. Herpetol. Rev. 6:116. (2nd author with B. M. Burr).

1975c. Variation in a population of *Thamnophis radix*. Bull. Chicago Herp. Soc. 10:14-16.

1976a. A new item in the diet of the box turtle. St. Louis Herp. Soc. Newsletter 3:13-14.

1976b. Courtship-like behavior of immature turtles. Herpetol. Rev. 7:110-111.

1976c. New herpetofaunal records for Illinois. Herpetol. Rev. 7:126-127.

1976d. (1977a). A case of melanism in *Thamnophis radix*. Trans. Illinois St. Acad. Sci. 69:119-120.

1977. Spawning behavior of the shorthead redhorse, *Moxostioma macrolepidotum*, in Big Rock Creek, Illinois. Trans. Amer. Fish. Soc. 106:80-82 (2nd author with B. M. Burr).

1978a. Temperature elevation as a releaser of mating behavior in some North American colubrid snakes. Bull. Chicago Herp. Soc. 13:9-12.

1978b. Geographic distribution: Desmognathus ochrophaeus. Herpetol. Rev. 9:106-107

1978c. Geographic distribution: *Cnemidophorus scalaris septemvittatus*. Herpetol. Rev. 9:108.

1980. Longevity records for captive *Bufo americanus* and *Uta stansburiana*. Bull. Chicago Herpetol. Soc. 15:79-80. (1st author with S. M. Meyer).

1981a. Variation in western logperches (Pisces: Percidae), with description of a new subspecies from the Ozarks. Copeia 1981:95-108. (1st author with L. M. Page).

1981b. Endangered and threatened amphibians and reptiles. Pp. 21-33. *In*: M. L. Bowles (ed.). Endangered and threatened vertebrate animals and vascular plants of Illinois. Illinois Dept. Conservation, Springfield (1st author with P. W. Smith).

1982a. Breeding tubercles in *Ictiobus cyprinellus* (Pisces: Catostomidae). Amer. Midl. Nat. 107:199-201. (1st author with B. M. Burr).

1982b. Activity, reproduction, and growth of *Opheodrys aestivus* in Illinois (Serpentes: Colubridae). Chicago Acad. Sci. Nat. Hist. Misc. (241):11

1982c. (Review) Turtles: perspectives and research, eds. M. Harless and H. Morlock. Physiol. Zool. 55:112.

1983a. An annotated bibliography of the Illinois herpetological literature, 1960–1980, and an updated checklist of species of the state. Illinois Nat. Hist. Surv. Bull. 33:123-137. (1st author with R. S. Funk and P. W. Smith).

1983b. (1984a). *Percina carbonaria* (Baird and Girard), Texas logperch. P. 720.5. *In*: D. S. Lee, et al. (eds.). Atlas of North American freshwater fishes. North Carolina State Mus. Nat. Hist., Raleigh.

1984a. Life history: *Elaphe obsoleta* (black rat snake). Autophagy. Herpetol. Rev. 15:19.

1984b. Gynogenesis and hybridization between Ambystoma

platineum and Ambystoma texanum in Illinois. Copeia 1984:324-337. (1st author with R. A. Brandon).

1984c. Comparison of erythrocyte sizes in *Ambystoma texanum*, *A. laterale*, and *A. jeffersonianum*. J. Herpetol. 18:197-198.

1984d. Geographic distribution: Lampropeltis calligaster calligaster (prairie kingsnake). Herpetol. Rev. 15:78 (1st author with M. B. Morris).

1985a. A hybrid *Ambystoma platineum* x *A. tigrinum* from Indiana. Herpetologica 41:267-271.

1985b. Envenomation from the bite of *Heterodon nasicus* (Serpentes: Colubridae). Herpetologica 41:361-363.

1985c. Size, age, and growth of an alligator snapping turtle, *Macroclemys temmincki*, from Illinois. Trans. Illinois St. Acad. Sci. 78:241-245.

1986. Anesthesia in snakes (*Pituophis melanoleucus* and *Python regius*) fed ether-killed rats. Herpetol. Rev. 17:88.

1989. Springtime is here, and so are the snakes. Illinois Nat. Hist. Surv. Repts. No. 286, 3 unnumbered pp.

1990. Distribution, habitat, and zoogeography of the plains leopard frog (*Rana blairi*) in Illinois. Illinois Nat. Hist. Surv. Biol. Notes 136, 6 pp. (2nd author with L. E. Brown).

1991a. Lectotype and type locality of the midland water snake, *Nerodia sipedon pleuralis* (Cope, 1892). Copeia 1991:243-245.

1991b. Courtship and mating of captive rough green snakes, *Opheodrys aestivus*, from Illinois. Bull. Chicago Herp. Soc. 26:34 (1st author with K. Vail).

1991c. Status of the river cooter, *Pseudemys concinna*, in Illinois. Trans. Illinois St. Acad. Sci. 84:77-83 (2nd author with E. O. Moll).

1991d. Reproduction in a western smooth earth snake (*Virginia valeriae elegans*) from western Kentucky. Bull. Chicago Herp. Soc. 26:133 (1st author with S. J. Walsh).

Ron Brandon, Department of Zoology, SIU at Carbondale Carbondale, IL 62901

My interest in herpetology began as a graduate student at Western Illinois University in Macomb, Illinois. Several years ago, I met Dr. Michael Morris who was head of the Cuivre Island Field Station along the Mississippi River in Missouri, along with his wife, Mary Beth who is also a scientist. I expected him to be the standard, old, small framed, eyeglassed scientist who wouldn't let you get a word in edgewise. However, I was pleasantly surprised. Dr. Morris was a lighthearted and sincere young man. His demeanor was gentle and kind. He listened intently to any conversation and thought carefully before answering. At the field station, we talked about spiders, a little known interest of his, and fish, a subject for which he is well known along with Dr. Larry Page of the

Illinois Natural History Survey in Champaign, Illinois. Of course, much of the time, I grilled him about herps. Heck, why not? What better chance to learn about these fascinating creatures than from the student of Dr. Phillip Smith, a herpetologist god. Dr. Morris would speak of a species of reptile or amphibian in terms of scientific names. While still in my early years, I had to pause during the conversation and ask the common name of the animal. He would plummet into deep thought. Scientific names were his common name for almost any species. I realized then that scientific names were extremely important and caught on quickly.

One of the things I remember most about Dr. Morris was his knowledge of herp distributions in Illinois. While on my herpetological outings, I carried Philip W. Smith's *The Amphibians and Reptiles of Illinois* with me. Several times a month, I would find a species locality not in Dr. Smith's book. I phoned Dr. Morris often to verify a locality record for a certain species. One such species was a western smooth earth snake (*Virginia valeriae elegans*) collected in Knox County over a hundred miles north of the closest northern locality in Illinois. A conversation with Dr. Gordon Thurow, a professor of mine at WIU, revealed that he had found this species in McDonough County. Even with Dr. Thurow's range extension, my record was 75 miles north of Dr. Thurow's. During a visit by Dr. Morris to WIU, I showed him the earth snake specimen. He recommended that I deposit it into the Illinois

Natural History Museum. However, since he had connections there, I asked him to deposit it and send me the deposition number. He encouraged me to publish my finding. My first publication appeared in the 1990 Bull. Chicago Herp. Soc. 25(1):4-5. He encouraged me to continue herping to help increase my knowledge of herpetofauna in Illinois. After, several more calls to him regarding new findings, he sent me a copy of his distribution maps to help me on my quest. This move increased my appreciation for a little-studied taxon in Illinois.

Although it has been two years since I last spoke to Dr. Morris, I always knew anytime I phoned with questions or just to say hello, he would be there to listen and provide advice. He always encouraged me and pointed me in the right direction.

I am thankful to Dr. Morris and his wife, Mary Beth, for their hospitality at Cuivre Island. I considered Dr. Morris to be the best herpetologist in the state of Illinois and one of the best in the country. He will be sorrowfully missed.

Thanks, Mike. I will pass on to others the encouragement you have given me.

Robert P. Sliwinski, USDA-ADC Wildlife Management Office, AMC/O'Hare International Airport, P.O.Box 66142, Chicago, IL 60666.

Bull. Chicago Herp. Soc. 28(5):106, 1993

1993 CHS Herpetological Grant Recipients

The following are the winners of CHS Herpetological Grants for 1993:

Edward M. Quinn, Natural Areas Manager, Lake Metro-Parks, 11211 Spear Road, Concord Township OH 44077. "A Censusing Study of Amphibian Population Trends at an Isolated breeding pond." Awarded \$500.

Thomas C. LaDuke, Department of Biology and Allied Health Sciences, Bloomsburg University, Bloomsburg PA 17815. "Association of Snake Species in Different Habitat Types." Awarded \$370.

James N. Stewart, Museum of Southwestern Biology, University of New Mexico, Albuquerque NM 87131. "Status of the Boreal Toad (*Bufo boreas boreas*) in New Mexico." Awarded \$200.

Sheila E. Frye, 120 Fisherville Road, #44, Concord NH 03303. "Ecology and Natural History of the Wood Turtle (*Clemmys insculpta*), in New Hampshire." Awarded \$500.

Timothy P. Boucher, 10142 Oakton Terrace Road, Oakton VA 22124. "Winter and Post-emergence Thermoregulation and Behavior in the Eastern Box Turtle (*Terrapene carolina carolina*)." Awarded \$480.

Matt Klukowski, Department of Biology, Indiana University, Bloomington IN 47406. "Seasonal Behavior Patterns in the Northern Fence Lizard (Sceloporus undulatus hyacinthus)." Awarded \$404.

Fredric Janzen, Center for Population Biology, University of California, 2320 Storer Hall, Davis CA 95616. "Behavioral Variation and Sex Ratio Evolution in Natural Populations with Temperature Dependent Sex Determination." Awarded \$500.

Van Wallach, Department of Herpetology, Museum of Comparative Zoology, Harvard University, Cambridge MA 02138. "The Status of *Rhamphotyphlops flaviventer* and its Synonyms." Awarded \$400.

Sean Doody, Department of Biological Sciences, Southeastern Louisiana University, P.O. Box 814, Hammond LA 70402. "A Comparative Nesting Study of Two Sympatric Species of Softshell Turtles (*Apalone spinifera* and *Apalone mutica*)." Awarded \$488.

Helpful Herp Hints

by Dennis Engler

- 1. I have read many articles about patients who have allergic reactions to mammals. The best types of pets for allergic patients are tropical fish, snakes, lizards, turtles and tortoises, frogs, salamanders, ants and certain other types of insects, and some spiders. None of these pets have hair or fur, or shed dander; nor does their excrement create allergic problems. However, patients should keep in mind that large aquariums (i.e., for keeping aquatic turtles) can add to the amount of water vapor in a room, thus increasing mold and dust mite concentrations in the house. Also, there is always the possibility of Salmonella poisoning from aquatic turtles and other herps (see "Snakes and the Salmonella Situation," Bull. Chicago Herp. Soc. 28(3):53-59, March 1993).
- 2. A friend and neighbor gave me this hint to pass on to those of you keeping insectivores. If you are having trouble with a lot of crickets drowning in the water dish, put a rock in the dish. Make the rock big enough so some of it is above the water level. This way if a cricket jumps or falls into the water it can climb onto the rock and save itself from drowning. Thank you, Rosemary.
- 3. Speaking of crickets, here's another hint for people who keep insectivores. I don't use plastic screening on any cages in which I feed live insects to reptiles. Crickets and some other insects can chew right through the plastic. Sometimes they can chew a large enough hole so that not only do they get out, but snakes or lizards might also be able to escape. Using only metal screening eliminates this problem.
- 4. It seems no one likes to throw away the crumbs from their mouse chow. Sue wrote in from New York to say she uses the crumbs to feed her crickets and mealworms before she feeds them to her herps. She mentions to be careful not to let the crumbs get wet. Thank you, Sue.
- 5. Dentists periodically need to buy new hand instruments because the old ones can only be sharpened so many times. But even though they are not useful for treating patients anymore, such instruments can be used to treat some animal problems. I have used dental instruments to scape out areas of shell rot on turtles. I have used a dental scaler to dislodge a foreign body from between the lip and gum of an iguana. I have used an excavator to scrape out an abscess on a snake. Now one dentist could not possibly supply the entire Chicago Herpetological Society, but most of you probably do not have the same dentist. Ask *your* dentist for any old explorers, spoons, scalers or curettes that he or she is no longer using.
- 6. Several members of the CHS have pointed out an oversight in my first column. I say oversight because I had thought to include this and in the excitement of getting out the first HHH column I just plain forgot. In addition to the alcohol on cotton trick, I should have mentioned that if a snake is biting your hand or finger, don't just rip it out of the snake's mouth. This action will only injure you more, making deeper and longer wounds in your hand. You could also injure the snake's

mouth, even to the extent of causing mouth rot.

- 7. Try to be sure that your cages do not come in contact with any form of constant vibration. Possible sources are: refrigerators, freezers, washing machines and driers (though these are not usually in constant use), aquarium motors, and even large stereo speakers. Constant vibrations can stress out your animal and cause loss of appetite and even illness (possibly by depressing the reptile's immune system). Thank you, Donna.
- 8. Several members have mentioned the benefits of soaking their animals, especially tortoises and iguanas. Some people have told me that they soak their tortoises periodically (once or twice a week) and that the tortoises always defecate in the water, saving clean-up time for the owner and resulting in a cleaner cage for the animal. A member from Stony Creek in Ontario, Canada, wrote that a 10-15 minute soak in lukewarm water solved the constipation problem of his 21/2-year-old iguana. Thanks, Brian. Snakes can certainly benefit from a soaking also, especially when they're going into a shed; a dish for this purpose should always be available. This can prevent incomplete sheds and problems with the eye caps not coming off with the rest of the shed skin. Which brings up the point that you should always check the shed skin for the eye caps to make sure they have been shed. If you can't find them, check the snake's eyes; usually it's easy to see if they are still there. They can be removed *carefully* with a small tweezers or even your fingernails, while the snake is held completely still (you might need a friend's help).
- 9. A tip on breeding. Resex your animals! It has happened to me twice that when I thought I had a pair, I really had two males. I now sex my snakes a second time either one year after I acquire them or before I hibernate them for the breeding season. If you can't sex your snakes yourself, there are a number of CHS members who would be happy to help you (it's really not that difficult to learn). The same advice applies for lizards, but some types of lizards can be very difficult to sex, even for experts.
- 10. A lot of general comments on prevention have been passed on to me by different CHS members. They have been on diet, housing, temperature, humidity, etc. really every aspect of herp husbandry. The common theme however, is the old adage "an ounce of prevention is worth a pound of cure." The idea being to find out as much as you can about the care of your animal and do whatever it takes to maintain the health of that animal, because it is much easier to keep an animal healthy than it is to cure a sick one. And if a problem does develop, dealing with it in a timely fashion increases the animal's chance of survival.

If you'd like to share a bit of knowledge that has helped you in taking care of herps, you can send it to: Chicago Herpetological Society, Helpful Herp Hints, 2001 N. Clark Street, Chicago IL 60614. Happy Herping!

NEWTLINE

President Ron Humbert welcomed 148 guests and members to the CHS meeting on March 31, 1993, in the James Simpson Theatre at the Field Museum.



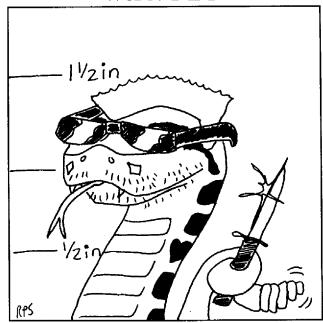
The business portion of the meeting began with a treasury report by treasurer Gary Fogel. Membership secretary Steve Spitzer reported a growth in membership to 1,997. Show chairperson Jack Schoenfelder announced a list of future CHS herpetological shows scheduled to include "Eco-Fest" at Volo Bog on April 13; Members Night at the Field Museum on May 7; a show in Willow Bend on May 21; Harold Washington Public Library's "Columbian Expo" on June 12; and a show in Oz Park in July. Jack suggested those members interested in meeting the public and answering questions regarding herps volunteer by bringing well-behaved and interesting reptiles and amphibians to the shows. CHS librarian Lisa Koester announced a new VHS tape on ridley turtles and TEDs had been donated and would be available at the library cart. Adoption chairperson Ben Entwisle requested members interested in adopting a variety of iguanas, a leopard tortoise, and/or baby Burmese pythons to leave their name and phone number with him during the break. Only two seats remained on the bus for the behind-the-scenes tour of the St. Louis Zoo on April 3, 1993 reported member-at-large Anthony Rattin. Brian Jones announced he is organizing a five day lizard-watching excursion through the southwest beginning May 3. Destinations include the Mojave Desert, Colorado Desert and a trip to the Arizona-Sonora Desert Museum. Chuck Keating, sergeantat-arms and representative for the Turtle Group, announced that the group's meeting on turtle publications was previously snowed out and they would try again at the upcoming meeting.

Ron Humbert had several announcements for the group. The Chicago Teacher's Center is seeking donations of complete snake skin sheds to be used in a herp display. He also reported the CHS Salamander Watch to be a success and thanked Gary Glowienke, head of the Camp Kiwanis boy scout facility, for his assistance. Members wishing to adopt northern crayfish frog eggs were told to see him during the break. Ron and Jack Schoenfelder had collected the eggs on a recent trip to southern Illinois. Adoptive parents were asked to grow the eggs as part of a "Frog Growing Contest." Prizes for the largest frog are to be awarded at the September meeting. Ron relayed member-at-large Claus Sutor's thanks to everyone for the cards and well wishes. Claus is recovering from sextuple cardiac bypass surgery.

Vice-President John Murphy concluded the business portion of the meeting by introducing Tom Anton. Tom's "Shorts" presentation was entitled "Illinois Pit Vipers." Tom has been an active member of the CHS for 14 years and most

recently helped to complete a study for the Lake County Forest Preserve District on the massasauga rattlesnake. His presentation focused on the four venomous pit vipers found in Illinois; the cottonmouth or water moccasin, the copperhead, the timber rattlesnake and the massasauga rattlesnake. Tom explained how these vipers earned their name from a specialized heat sensitive membrane located in a pit between the eye and nostrils. Surprisingly, the tolerant snakes allowed Tom to photograph them at close range. Slides showed the pit vipers in their natural environment. Equipped with snake hooks and protective footwear, Tom traveled to various abandoned buildings, prairies, open woodlands, swamps and bluffs in rural Illinois to study their behavior, reproduction and diet. Tom illustrated how an individual pit viper can be easily identified by unique markings or patterns on its back. Just as no two humans have identical thumbprints, no two pit vipers have the same markings.

WANTED



MASSASAUGA MARVIN

WANTED FOR: Spitting in public and

carrying a concealed rattle

ALIASES: Drac, Hole-puncher

HEIGHT: LENGTH: 1½ inches 4 feet Yes

EYES: SPECIES: SCARS/MARKS:

Pit viper See photo Security guard

OCCUPATION: REMARKS:

Marvin is considered nonviolent. However, authorities report he

will bite when provoked.

During the 25 minute intermission, **Dottie Humbert** distributed the northern crayfish frog eggs which had already begun to transform into tadpoles. I approached **Paul Braun** who had chosen to adopt a bag of five tadpoles and asked what

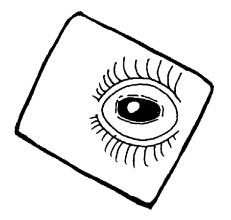
he planned to feed them in hopes of winning the contest. His plan was to feed them boiled lettuce, finely ground fish food for live bearing fish and provide them with a light source. I wished him luck and moved on to the book sales table. However, the table was mobbed by an overwhelming amount of buyers, so I proceeded to the library cart. Lisa Koester was on hand to answer questions and help members locate books. Across the room, Brian Jones was busy selling raffle tickets. Prizes on display were a Neodesha cage, reptile heater, canned food, plants, magazines and a highly coveted ticket to the St. Louis Zoo trip. Ilene Sievert, in addition to providing the plants, had donated fresh spring worms from her garden.

After the raffle, John Murphy introduced the featured guest speaker, Scott Keogh, a 1992 CHS grant recipient* and graduate student at Illinois State University. Scott's presentation was entitled, "Comparative Visceral Topography, Evolution and Phylogenetic Systematics of the Tribe Lampropeltinae (Reptilia: Serpentes)." As you can see from the title, the slide * CHS grant awards are partially funded by CHS book sales.

presentation was somewhat on the technical side. Scott's introduction to systematics began by explaining there are 2700 species of snakes in the world, 65% of which are colubrids. As examples of the tribe Lampropeltinae Scott showed slides of the glossy snake, scarlet snake, corn snake, fox snake, prairie kingsnake, common kingsnake, mole kingsnake, Mexican kingsnake, pine, bull and gopher snakes and many more. Scott compared many characteristics including scalation, visceral morphology, hemipenis morphology, osteology, ecology, myology, karyology and dentition to determine how members of the tribe are related. Detailed dissection was also depicted. Through a series of graphs, the evolutionary history of the lampropeltine snakes was addressed. Scott believes. "Characteristics drawn from comparative visceral morphology can be useful tools for studying the phylogenetic history of snakes." With regard to conservation, Scott also believes it is important to study the systematics of all organisms to determine genetic characteristics, "... because if you don't know what it is, you can't save it."

Eye of Newt — Special Report

As a Newt and for fear of being captured, I observed from a distance the CHS Salamander Watch held at Camp Kiwanis-Owasippe Lodge, on part of the 14,000 acre Palos-Sag Valley Forest Preserve



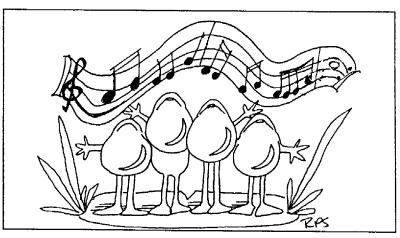
in Willow Springs, Illinois, on Sunday, March 28. Approximately 80 members and guests could be seen from a distance. Atop three tables were massive amounts of human food and drink consisting of donuts, muffins, juice, coffee and hot chocolate. Not far from the refreshments and on display were my cousins housed in small containers, a marbled salamander and larvae, a central newt, a slimy salamander, a mole salamander, a smallmouth salamander, a Mexican frog, an Argentine horned frog, a White's tree frog, a lowland burrowing treefrog and a spotted salamander with egg mass-

es. I hoped they weren't part of the refreshments.

Addressing the group was CHS member Ken Mierzwa, a consulting biologist for the Forest Preserve District of Cook County's Palos Restoration Project. He explained that the day's findings would be especially important to the Restoration Project. It wasn't long before the crowd had organized into small groups and was off to pursue their mission. Assisting Ken were two of the Project's volunteer guides, Rich Hyerczyk and Sherry Zoars. Ken distributed maps and report forms to the volunteer leaders of each group. Among the 13 targeted sites were Cranberry

Slough Pond, Tomahawk Savanna, Spears Woods, Swallow Cliff and Buffalo Woods Pond. I was relieved to hear there would be absolutely no animals collected or removed from any of the sites. I stowed away in Ken's camera bag as he headed off to Spears Woods. His group consisted of members John Beale, Gary Fogel, Debi Hatchett, Brian Jones and Robert Sliwinski. After an exhaustive search, the group resorted to the use of a seine in a small pond. This method seemed to be more successful. I was able to greet fellow newts, blue-spotted salamanders and a tiger salamander. After seining another location, the group reconvened back at the facility to meet with the others. The combined search yielded a total of 34 bluespotted salamanders, 1 spotted salamander, 3 tiger salamanders, 8 central newts and 4 Chicago garter snakes. Hopefully my friends' natural habitat can be preserved for years to come. As I scurried out the door, western chorus frogs serenaded me home.

We stay in touch, so you stay in touch. Respectfully yours, NEWT



HerPET-POURRI by Ellin Beltz

Salamander pond may be developed

A pond on a wooded hilltop along U.S. 44 in southwest St. Louis County is about to be destroyed to build a skeet shooting range. "[The pond] has been studied for many years because of the peculiar combination of spotted, tiger and marbled salamanders. There's only one other spot in the world where the three species occur together, and that's in Nova Scotia," said Richard W. Coles, a Washington University professor and director of the Tyson Research Center across the highway from the pond. The Missouri Department of Conservation [MDOC] owns the pond and surrounding woodland, calling the site "Forest 44 Wildlife area," which might lead some to believe that the salamanders can be left to breed as they have for several thousands of years. However, the MDOC plans to build one of three skeet shooting areas directly on top of the pond. Jerry Presley, director of the MDOC Conservation Department was approached by the Director of the St. Louis Zoo, Charlie Hoessle, in an attempt to save the pond. According to Hoessle, Presley responded that it was too late to save the pond. Chris Phillips, a CHS member and Washington University postdoc, led a team of volunteers to the pond in late March to try to collect thousands of salamanders before the bulldozers moved in. Nearly every MDOC official in the St. Louis area turned out to help. Don Henson, a department engineer showed up and promised to hold off work around the pond to allow a second collection of salamanders. The department also dug a second pond about 100 yards away from the first, where the collected eggs and salamanders were deposited. Phillips suggested that the translocation effort may not take because of pond fidelity. He said, "The adults imprint on their home pond and will return, even if it's asphalt, and mill around. We might as well take them out on Interstate 44 and put them in front of a truck." [St. Louis Post Dispatch, March 28, 1993] It occurs to this writer that if the MDOC can dig a new pond 300 feet (100 meters) away from the old pond that the skeet range could just as easily be placed 300 feet from the pond instead of smack dab on top of it. Contributor Ann Hirschfeld wrote: "[I'd like] a call to action for a letter writing campaign against the so-called 'handling' of this wetland. It's up in the air how much time the salamanders have left. Send letters to: Jerry J. Presley, Director of the Conservation Department, Missouri Department of Conservation, P.O. Box 180, Jefferson City, MO 65102."

Get out your airmail stationery

Harry Andrews of the Madras Crocodile Bank sent in some clippings from Indian newspapers and a request for our readers' help. Years ago, the Bhitarkanika Sanctuary for wildlife was established on the eastern coast of that subcontinent. It provides a haven for many creatures, and has the second largest nesting population of olive ridley sea turtles (*Lepidochelys olivacea*) in the world. In 1991, 610,000 adult females came ashore to nest in only one week. In the same year about 3.5 million hatchlings walked into the surf. Harry wrote: "The area is crossed by a network of rivers and has extensive tracts of mangrove. It has survived severe cyclones,

and a huge increase in fishing activity. [Before the plans for a fish landing jetty] the greatest conservation problem is trawlers using plastic gill nets that can be 2 kilometers long. Turtles drown after being caught in the nets, others are fatally injured by propellers and some are clubbed to death by fishermen. Hawksbill and leatherback turtles also occur here and the 672 square kilometer sanctuary is home to a large population of saltwater crocs, king cobras, pythons, 3 species of water monitors, a huge heronry, nesting whitebreasted sea-eagles, 6 species of kingfishers, and numerous other animals." The fish landing jetty which may be built in 1.5 years will anchor over 500 mechanized boats and provide landing for 50 metric tons of fish every day. The Calcutta, India, Telegraph [December 29, 1992] wrote, "Sources point out that this large scale fishing operation is bound to disturb the ecological balance of the region. The Bhitarkanika sanctuary has already suffered a lot due to the ever-increasing human settlements in nearby villages." Harry asks that we write ("preferably on formal headed paper") to "The Honourable Minister, Ministry of the Environment, Paryavaram Bhavan, B Block D.G.O. Complex, Lodi Road, New Delhi 110003, India" and to "The Chief Minister of Orissa, Bhubaneshwar, Orissa, India" asking them to continue to protect the Sanctuary and reconsider plans for the jetty. My own suggestion would be to point out that ecotourism is a never-ending resource and that fishing out 50 metric tons of fish every day cannot last long.

Can't please everybody department

Perhaps this paragraph should be titled, "At least someone reads this column . . . " I've received a letter complaining about my complaining about Dr. Jared Diamond's piece on Komodo dragons some time ago. As my editor, Mike Dloogatch, told me, "You don't have to like everything." I guess that holds true for my readers, too. However, since complaints about this column are so rare (is anyone out there?), I thought you might like to read one: "I suspect that because there is so much sensationalism and hatred in popular writing about reptiles, and you are sick of it (as am I) and are used to seeing it written by and for reptilophobiacs, you have overreacted to the sensationalism in this popular writing, where it was just meant to make a story about, well, dry bones less dry to the general reader I hope you find that my writing to you about it is a friendlier act than writing direct to 'The Tympanum.' Ann Drummond, Editor, Gainesville Herpetological Society."

Turtle Conference Announced

We received a flyer the other day, addressed to my husband, but since it said "turtles," I opened it to discover the announcement of "Conservation, Restoration, and Management of Tortoises and Turtles — An International Conference." It will be held July 11-16, 1993, at the State University of New York, Purchase, New York, and is being sponsored by the Turtle Recovery Program, Conference Coordinator, American Museum of Natural History, 79th Street and Central Park West, New York, NY 10024-5192, FAX (212) 769-5031.

People having events are reminded that papers on my husband's desk routinely turn to shale before being read and that if you'd like timely publicity, please address your fliers to me. I made an exception in this case since I am the "turtle-person" in the house.

Quote of the month

George B. Schaller, author of *The Last Panda*, 291 pages, University of Chicago Press, "I was trained as a biologist. Research is fun and it's easy. But no scientist can afford just to study. There's a moral obligation to do more for conservation. If you only study, you might get to write a beautiful obituary but you're not helping to perpetuate the species." [New York Times Book Review, March 28, 1993, contributed by P. L. Beltz]

New Year's Iguana

L. W. Reed, D.V.M. sent a clipping from the *Caymanian Compass* [December 31, 1992] which tells about an iguana captured by firefighters in West Bay. It turned out that the iguana was an "illegal alien," a green iguana native to Central America, not a blue iguana native to the Caymans.

Tortoises may get more home on their range

Biologists with the U.S. Fish and Wildlife Service want Paradise Canyon and other areas near St. George, Utah, included in a proposed desert tortoise preserve. Robert Benton, a biologist with the agency, said there was no need for development in areas favored by the tortoise and that the county's growth can be accommodated by expansion into farmlands along the Virgin River. The decision was a setback for a citizens committee working on a plan to protect the tortoise but which would have allowed development north of St. George. Their proposal was unacceptable to FWS which noted that all high-quality habitat remaining should be preserved. A St. George developer, estimated the value of private land in Paradise Canyon at \$100 million. [Las Vegas Review-Journal/Sun,

March 27, 1993, contributed by Bob Pierson]

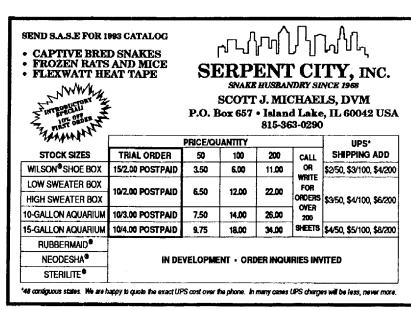
New rattlesnake laws in Kansas

A clipping from the Lawrence Journal-World [February 17, 1993] sent by Hobart Smith describes proposed changes to the list of game that can be harvested in Kansas. If passed, the bill would add the prairie rattlesnake and permit the sale of meat, rattles and other parts bagged in rattlesnake roundups, one of which was held for the first time last year in Sharon Spring in Wallace County. A second roundup is scheduled for May and promoters hope to make it an annual event. Kansas Senate Majority Leader Sheila Frahm said, "It's economic development for that county and that area. There are 1,841 people in Wallace County . . . there are more rattlesnakes than people in Wallace County and prairie rattlesnakes are not an endangered species."

Of special note to newsletter editors

Mark Witwer of West Chester, Pennsylvania, sent me some copies from a League of Florida Herp Societies newsletter about gopher tortoises and indigo snakes. I would have loved to use them and I did add them to my four drawer file cabinet of herp clippings—however, the clippings were not sourced, nor were dates given. I'm not sure what the copyright laws say about photocopies and reprints of articles, but I'm positive that the newspapers would be happier if their names were included. Clipping collectors like myself both want and need publication names and dates for future reference. One of these days, I'd like to get my files transferred to CD-ROM and then lots of herpetologists will have access to the stories I've used in my various columns as well as those that I couldn't do anything with, but that were still interesting.

Thanks to everyone who contributed this month! If you would like to contribute to this column, please send clippings with the source, the date, and your name firmly attached to: Ellin Beltz, 1647 N. Clybourn Avenue, Chicago, IL 60614-5507.



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Herpetology 1993

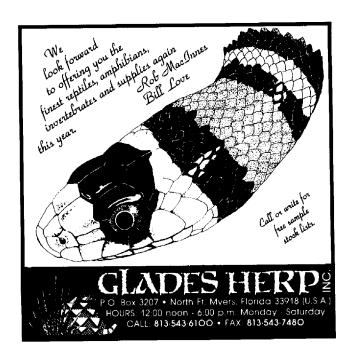
In this column the editorial staff presents short abstracts of herpetological articles we have found of interest. This is not an attempt to summarize all of the research papers being published. It is an attempt to increase the reader's awareness of what herpetologists have been doing and publishing. The editors assume full responsibility for any errors or misleading statements regarding the results of the abstracted research. JCM

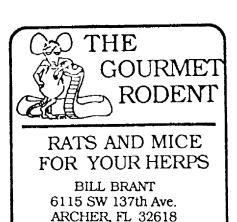
SEA TURTLE CONSERVATION: A DIFFERENT PERSPECTIVE

N. B. Frazer [1992, Conservation Biol. 6(2):179-184] writes that how we define a problem often determines what we are willing to consider as solutions. When we define the impending extinction of a sea turtle species solely in terms of there being too few turtles, we are tempted to think of solutions solely in terms of increasing the numbers of turtles. Hence, some of our attempts to conserve sea turtles involve "halfway technology" which does not address the causes of or provide amelioration for the actual threats turtles face. Programs such as headstarting, captive breeding and hatcheries may serve only to release more turtles into a degraded environment in which their parents have already demonstrated that they cannot flourish. Furthermore, captive programs may keep turtles from serving important ecological functions in the natural environment, or place them at some disadvantage relative to their natural counterparts once released. Such programs can be contrasted with more appropriate technologies that directly address and correct particular problems encountered by sea turtles without removing them from their natural habitat. For example, installing turtle excluder devices in shrimp trawl nets will reduce mortality of adult and larger juvenile sea turtles, and using low pressure sodium lighting on beaches may prevent hatchlings and nesting females from becoming disoriented. In the final analysis, we need clean and productive marine and coastal environments. Without a commitment to such long term goals, efforts to protect sea turtles will be futile.

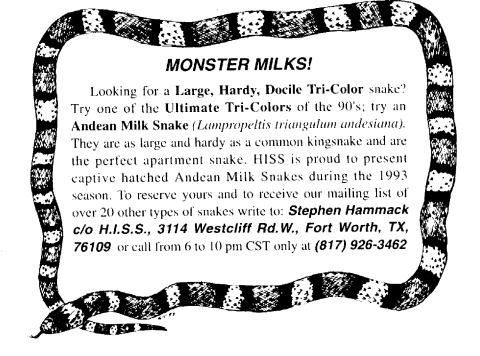
A NEW TREEFROG FROM SOUTHEASTERN BRAZIL

J. P. Pombal et al. [1993, Herpetologica 49(1):16-21] describe *Hyla luctuosa* from the Serra do Japi in southeastern Brazil. The new treefrog was discovered in vegetation around temporary ponds within several municipalities. Its name means sad, and alludes to the mournful calls made late at night.





(904) 495-9024



Unofficial Minutes of the CHS Board Meeting, April 16, 1993

The meeting was called to order by President Ron Humbert at 8:11 P.M., with all board members present except Claus Sutor.

Officers' Reports:

The minutes of the March board meeting were read and approved.

Treasury: The treasurer's report was approved as read by Gary Fogel. The combined balance was \$27,103.43 as of March 31, 1993. We may owe a penalty to the IRS due to a misunderstanding as to where to remit FICA taxes.

Membership: Steve Spitzer reported membership to be 1956.

Director of Sales' Report:

A complete book list will be published 3-4 times annually and sent out with the *Bulletin*. A merchandise list highlighting new or special items will be included monthly.

Standing Committee Reports:

Programs: 148 people attended the March general meeting. Back-up ideas were discussed for the unlikely event that a featured speaker must cancel at the last minute or does not show.

Grants in Herpetology: Nine grants were awarded for a total of \$3842. Most of the studies selected were environment-oriented. Tom Anton thanked Mike Miller, Alan Resetar and Byron DeLaVarre for their long, hard work.

Shows: Jack Schoenfelder presented a show schedule update. Ten shows are currently scheduled or requested from April through October. See Jack to get involved! The CAS Herp Weekend will be September 18 & 19.

Raffle: The March raffle yielded \$99.50 gross. Donations of items are always welcome.

Adoption: Ben Entwisle presented a formal report for placements from December 31 to date.

Library: Computerization of the library inventory is complete. Lisa Koester is preparing a formal request for new acquisitions.

Ad Hoc Committee Reports:

Facility: Storage space within the Field Museum is still under construction. CHS members will participate in the museum's members' night. Live animals are welcome for this event.

Old Business:

Membership dues/costs: Jim Gaspar presented a report on dues structure and CHS finances. After discussion, Jim Gaspar moved to raise dues effective July 1 as follows: Individual-\$22; Family-\$25; Sustaining-\$32; Contributing-\$125; Institutional-\$38; non-U.S. additional postage to remain at \$12. Stacy Miller seconded the motion. Jack Schoenfelder then moved to table the vote until May to allow for delibera-

tion. Mike Dloogatch seconded Jack's motion. The motion to table failed 3:8 with Jack Schoenfelder, Mike Dloogatch and Steve Spitzer voting to table. After further discussion, Jim amended his motion as follows: Sustaining-\$50; Contributing-\$100; to be effective September 1. The motion carried 6:4 with John Murphy, Gary Fogel, Stacy Miller, Brian Jones, Chuck Keating and Jim Gaspar voting for and Steve Spitzer, Mike Dloogatch, Jack Schoenfelder and Tony Rattin voting against.

Proposed election amendment to CHS Bylaws: Discussion deferred

Books due to FMNH: Books have been delivered.

Field trips: Tony Rattin reported that 45 people attended the April 3 St. Louis Zoo trip. Due to the success of the trip, more may be planned; perhaps the Cincinnati, Milwaukee and Indianapolis zoos.

Care in Captivity: Stacy is still accepting input for *Care in Captivity*. Suggestions must be in writing. Jill Horwich offered to assist with editing.

Insurance, bonding: Tabled.

New Business:

CHS audit: Ron will appoint an audit committee.

Exchange membership: Steve Spitzer moved to establish exchange membership with the Tri-State Herpetological Society. Jack Schoenfelder seconded; the motion passed unanimously.

Round Table:

Mike Dloogatch reported receiving comments of concern regarding the change in board meeting location in March.

Gary reported receiving a thank you letter from the Galapagos project.

Ron reported that Lisa Hernandez is the new CAS Visitor Service Assistant. Brian Jones will communicate to her the CHS's desire to continue the CAS affiliation.

The meeting adjourned at 10:42 P.M.

Respectfully submitted, Stacy L. Miller, Recording Secretary



Advertisements

Accrue more herpetological knowledge: Connect with your peers throughout North America and abroad. The HERPETOLOGY ONLINE NETWORK is active 24 hours/day. Any computer modem can access Herp-Net via (215) 464-3562 (300-1200 baud 8-N-1) or (215) 698-1905 (9600 + V32, V42bis.) Submit news via FAX: (215) 464-3561 any time.

Attention: the Varanid Information eXchange is a society of herpetoculturists sharing an interest in MONITOR LIZARDS. Members receive the bimonthly newsletter, VaraNews. Annual membership is: U.S., \$10; foreign, \$12 surface/\$15 air. For a free copy, send a legal-size SASE to: Varanix, 8726D S. Sepulveda Boulevard, #243, Los Angeles CA 90045.

BOA SURVEY: Please write for my questionnaire on *Boa constrictor* reproduction. Even if your animals have not reproduced, please respond if they are at least four years old and have had the opportunity. In return for a completed survey you will receive a chart showing the subspecies, their scale counts and range. William Joy, P.O. Box 821433, Dallas TX 75382.

Fauna classifieds: monthly classified publication for reptiles, amphibians, food items & supplies, literature and more. Excellent information source, worldwide circulation. Subscription \$14/year. Free sample & info. Write: FAUNA, 2379 Maggio Circle Unit C, Lodi CA 95240.

For sale: WILLARD'S RODENT RANCH—tell 'em Ben sent ya! Live or fresh-frozen mice and rats—mice; pinks to hoppers \$.35 each or 3/\$1.00; weanlings to adults \$.50 each; jumbos \$.75 each—rats; pinkies to chubbies \$.50 each; fuzzies \$1.00 each; small \$1.50 each; medium \$2.25 each; large \$3.00 each; jumbo \$4.00 each. Discounts available on large one-time orders. Prices subject to change without notice, availability may vary. Pick-up or delivery at the CHS meeting, shipping available for large frozen orders. Contact Mike Miller (days) at (708) 974-2600.

For sale: HIGH QUALITY FEEDER ANIMALS PRODUCED FROM THE BEST LAB DIETS AVAILABLE. Tenth year of production and supply of frozen feeder animals. All feeders can be removed one at a time from the bag; they are not frozen together. All orders will arrive frozen. Now offering seven sizes of mice: small newborn pinks, medium size pinks, large fuzzy pinks, extra large fuzzies/small hoppers, juvenile mice, young adults, and large adults. Also available are pinkie rats, baby chicks, and quail chicks. Orders sent special delivery, postage extra. Free pricelist. Kelly Haller, 4236 SE 25th Street, Topeka KS 66605, (913) 234-3358, after 6 P.M. Central Time on weekdays, all day Saturday and Sunday.

For sale: THE GOURMET RODENT: rats and mice—pinkies, fuzzies and adults. Quantity discounts. Please send a SASE for pricelist or call Bill Brant, 6115 SW 137th Avenue, Archer FL 32618, (904) 495-9024.

For sale: top quality mice, rats and Chinese dwarf hamsters. All sizes at competitive prices. Gary W. Allison, 919 Wyandotte Street, Bethlehem PA 18015, (215) 974-8975.

For sale: murine-pathogen-free rats and mice available in all sizes, live or frozen: pinkies, fuzzies, crawlers, small, medium and large. Frozen crawler mice in lots of 2000, \$.17 each. Also available, full grown hairless mice. FOB shipping point. Master Card accepted. Call (518) 537-2000 between 8:00 A.M. and 5:00 P.M. or write SAS Corporation, 273 Hover Avenue, Germantown NY 12526 for prices and additional information.

For sale: THE RAT SHACK: all colors, sizes & quantities of domestic rats. Call Keith or Shannon Allen in Alabama, (205) 536-3081, evenings.

For sale: MISSISSIPPI MICE: frozen mice, fuzzies, pinkies – quantity discounts. Rob Screws, 130 Calhoun Ave., Yazoo City MS 39194, (601) 746-8336.

For sale: high quality feeder mice. Shipped UPS Next Day Air. All mice are properly processed to insure a quality product. Fourth year of production and supply of frozen feeder mice. Prices: pinks, \$20/100; fuzzies, \$25/100; weanlings, \$30/100. Also available are 4 oz. + rats, \$100/100. The Mouse Factory, P.O. Box 85, Alpine TX 79831, (915) 837-7100, Ray Queen.

For sale: quality frozen mice, pinks through adults. Libby & Darrin Reed, Carolina Mouse Farm, P.O. Box 382, Salem SC 29676, (803) 654-0116.

For sale: top quality live mice for pickup or delivery in Chicagoland area only. Pinkies to adults, \$.50 each. Call (708) 867-1078, ask for Garry or leave a message.

For sale: live mice, Dallas-Ft. Worth Metroplex. Adults, hoppers, fuzzies & pinkies. J.R.'s Cowtown Critters, (817) 465-4188 or (817) 465-2026, Arlington TX

For sale: live or frozen feeder mice and rats, all sizes available, from pinkies to adults. Quantity discounts. Lowe Labs, (708) 749-RATS.

For sale: We've grown and we've got a name! **SERPENT CITY, INC.** Celebrating 25 years of snake husbandry, c.b. snakes, supplies and expert husbandry advice. **Minimum** 30-day guarantee on all surplus. Introducing our new **disposable cage liners!** See our display ad this issue. Finally an affordable, functional, ready-to-use disposable liner. Herpetoculture has been asking for them—we believe there's nothing else like it on the market. Call to discuss custom cutting and bulk discounting. **FLEX-WATT* HEAT TAPE**—again an excellent product—3" wide: I-20', \$2.50/foot; 21-49', \$2.25/foot; 50'+, \$2.00/foot—11" wide: 1-10', \$3.50/foot; 11-49', \$3.25/foot; 50'+, \$3.00/foot—clip sets: 1-20, \$2.00 each; 21+, \$1.50 each. Assembled units available. **No-Pest* strip**, \$6 each postpaid or 2 for \$11 postpaid. **Betadine* scrub**, \$10/pint or \$40/gallon. **Frozen rodents** always available. Mice: pinks—weanlings, 3/\$1; subadult, 40¢; adults, 50¢. Rats: small, 60-80¢; medium, \$1-1.50; large, \$2; jumbo, \$3. Call on quantity discounts [note: discount on orders picked up at CHS meetings]. Live rodents available at a higher price. Send SASE for 1993 stock and supply list. Scott J. Michaels, D.V.M, P.O. Box 657, Island Lake IL 60042, (815) 363-0290.

For sale: Mealworms: 50 ct. units, 55c each; 100 ct. units, \$1.00 each. Superworms: 25 ct. units, \$1.55 each; 50 ct. units, \$2.75 each. Crickets: 500 for \$9; 1000 for \$15.50. Cricket/superworm feed: 2½ lbs for \$1. Send SASE for price list and shipping chart. Cheri Hosley, 23872 Brownstown Square, #1A-101, Brownstown MI 48174.

For sale: large selection of captive born reptiles and amphibians, books and supplies. Send S.A.S. business-size envelope for complimentary price list or \$5 for a 1 year subscription (bi-monthly), to Twin Cities Reptiles, 540 Winnetka Avenue North, Golden Valley MN 55427, (612) 593-0298.

For sale: books on reptiles and amphibians, used, out of print and rare. Over 3400 titles listed. List sent free upon request. Herpetological Search Service & Exchange, 117 E. Santa Barbara Road, Lindenhurst NY 11757.

For sale: 1993 HERPETOLOGICAL DIRECTORY. A valuable information source containing private and commercial breeders, foreign exporters, U.S. and foreign herp societies, wholesalers, and sources for rodents & other food items, supplies & equipment and publications. Send \$15 to FAUNA, 2379 Maggio Circle Unit C, Lodi CA 95240.

For sale: desktop publishing services. Give your bulletin, newsletter or pricelist a professional look. Quality desktop publishing with latest top-of-the-line software. Available in black & white or color, returned on paper or disk. Results guaranteed. For free sample write or call. Joe Monahan, 605 E. Burlington Street, Iowa City IA 52240, (319) 337-9242.

For sale: Rattlesnake Hunting, a 60-minute video by a 30-year veteran collector. Don't miss this one! It's as close to being in the field as you can get. (Not a slick commercial production.) Send check or money order for \$19.95 plus \$3 postage & handling to: D. Wheeler, 2705 Sunset Trail, Riverwoods IL 60015. Allow 4-6 weeks for delivery.

Advertisements (cont'd)

For sale: IHS Videotapes — 1992 Amphibians. The tape includes "Natural History and Captive Husbandry/Propagation of the Rare Chinese Frog, Rana schmackeri" by Philippe de Vosjoli and Robert Mailloux; "The Amphibian Fauna of Australia" by Michael J. Tyler, Ph.D.; "Declining Amphibian Populations: Insights and Possible Causes" by Alan Pounds, Ph.D.; "The Gastric Brooding Frog" by Michael J. Tyler, Ph.D. Tape prices for 1992: \$24.95 for standard VHS, \$29.95 for S-VHS. Make out check or money order to Mark Silver Productions, P.O. Box 15731, Seattle WA 98115. For complete list of 1991 & 1992 IHS tapes please send name, address and telephone number. Shipping \$2.95. Half of the net profits go to IHS, Inc.

For sale: Tired of getting bitten while collecting, feeding or maneuvering animals? Try my Whitney tongs—10% discount to herp society members—2', \$65 each; 2½', \$66 each; 3½', \$68 each; 4', \$69 each, 5', \$85 each; 6', \$90 each. Will ship U.P.S. extra. Send money order or cashier's check to Don Lunsford, 5661 Walkerton Drive, Cincinnati OH 45238.

For sale: Collect more snakes safely by using the PILLSTROM SNAKE TONG. There are five lengths: 26-inch, \$42; 36-inch, \$44; 40-inch, \$45; 46-inch, \$46; and 52-inch, \$47. For fast delivery these tongs can be shipped UPS-COD. Freight costs not included in above prices. Pillstrom Tongs, 4617 Free Ferry Road, Fort Smith AR 72903, (501) 452-3001.

For sale: custom-built reptile cages, reasonable prices. Call for details. Washington DC — Baltimore MD area. Tom, (301) 864-5569.

For sale: 1993 captive born northern blue-tongue skinks, *Tiliqua scincoides intermedia*, \$200-225 each; 1993 captive born eastern blue-tongue skinks, *Tiliqua s. scincoides*, \$150-165 each; 1993 c.b. geckos – giant day geckos, *Phelsuma maadagascariensis grandis*, \$35 each; Koch's giant day gecko, *P. m. kochi*, SALE \$20 each. For a price list of my 1993 potential captive bred reptiles, send \$1 plus SASE. Jim Zaworski, P.O. Box 2922, Carbondale IL 62902, (618) 985-6220, leave message on machine.

For sale: books! Also rare and unique lizards. Egernia cunninghami and bearded dragons are expected any time now. Call or write for our NEW free price list. Ray's Reptiles, P.O. Box 4732, Lincoln NE 68504-0473. Call Monday - Saturday, (402) 477-1975 or FAX (402) 466-8423, evenings best.

For sale: 2' tegu, healthy, active, eating great, asking \$100; 44" iguana, very tame, beautiful, asking \$200; 30" iguana, frisky but tame, very bright full green body, asking \$100; 20" iguana, stub tail, frisky but tame, dark to bright green, asking \$50. No offer is an insult. Make me an offer. Chicago area preferred. Jim, (312) 509-6163.

For sale: c.b. '92 geckos: giant day geckos, *Phelsuma madagascariensis grandis*, \$35; gold dust day geckos, *P. laticauda*, \$30; lined day geckos, *P. lineata*, \$25. Chicago pick-up only. Jim, (312) 583-1931, leave message.

For sale: rhinoceros iguanas; Cuban iguanas; green iguanas; Geochelone sulcata; G. elephantopus (Florida sales only). D. J. or Sam, (305) 680-8492. [FL]

For sale: female leopard tortoise, approximately 7 years old, gorgeous black and tan markings. (312) 262-1487.

For sale: male African spur-thighed tortoise, *Geochelone sulcata*, approx. 35 lbs., 3 years old, c.b., very healthy and beautiful, great eater. Best offer. Also, many fish tanks and cages also available. Laurie Jacobs, (718) 913-0349.

For sale: two male and two female trans-Pecos rat snakes, blond phase, c.h. '90 & '91, \$400/pair or \$700/group; Sonoran gophers, one male and one female albinos, one female hetero, c.h. '89, \$225/trio; striped San Diego gophers, one male and one female albino, one female hetero, c.h. '90, \$400/trio; one male and three female Timor monitors, long-term captives (2 years), \$800/group. The above animals are in good condition and many are breeding NOW! Other offers considered. Dan Malone, 15085 180th Avenue, Big Rapids MI 49307, (616) 796-9299

For sale: two male and two female Honduran milksnakes, tangerine phase, c.b. '92, average color, \$125-135 each; two male and two female Coastal Plains milksnakes, c.b. '91, very nice color, cycled for breeding, \$175 each; one male and one female carpet pythons, proven breeders, male is striped (pair produces striped offspring), excellent color, \$900/pair; one male and one female 7-8' carpet pythons, proven breeders, variegated pattern, \$900/pair; one male and one female Durango mountain kingsnakes, c.b. '92, unrelated pair, great mouse eaters, beautiful, \$300/pair; mangrove monitor, very pretty, large, 2-year capive, eats like a pig, make offer. Other snakes available, quantity discounts possible. Chris, (619) 287-3937.

For sale: Malaysian blood pythons, eggs in the incubator, expected hatch date 6/18. They will be very reasonably priced. All adults came from David Lawrence. Jim Nesci, evenings after 7 P.M., (708) 349-4191.

For sale: female Calabar burrowing python, \$70. D. Melvin, (708) 295-6518.

For sale: ball python, about 31/2, tame, good feeder, quiet, \$100 or best offer. Tom, (312) 736-9081.

For sale: green tree pythons, c.b. from separate bloodlines, feeding on pinkie mice, feeding records accompany all animals, \$650 each; Brazilian red-tail boas, c.b., \$350-450 each. Bill Tropp, 63 Calle Industrias, #487, San Clemente CA 92672.

For sale: one male and one female mid-Baja rosy boas (2 years old) exceptional, \$400/pair; two female Children's pythons, c.b. '91, \$200 each; two male and two female albino bullsnakes, c.b. '92, outstanding! \$400/pair w. FREE hetero male; one male hetero and one female albino bullsnakes, \$300/pair; male bullsnake, hetero for albinism, c.b. '92, \$50; male bullsnake, hetero for albinism (slight kinked tail), \$25; one male and one female Baja Cape gopher snake, c.b. '92, exceptional, \$350/pair; female albino desert phase California kingsnake, c.b. '92, \$50; 26" male desert phase California kingsnake, hibernated/ready to breed, \$100; two yearling male desert phase California kingsnakes (very rare), \$85 each; 28" male motley (hi yellow) California kingsnake, c.b. '91, \$85; one male and one female yellow ratsnakes (male hetero, c.b. '91—female albino, c.b. '92), \$200/pair, male separate (hetero albino), \$75, female separate (albino), \$100; female yearling eastern chain kingsnake, \$50; female albino Sonoran gopher snake, 4' adult, very yellow, \$200; three male and two female frog-eyed sand geckos, *Teratoscincus scincus*, established, \$300/group. Allen E. Anderson, P.O. Box 166, Norwalk IA 50211, (515) 981-0402, FAX (515) 981-0402 (8 A.M. - 5 P.M. weekdays).

For sale: one male and two female Macklot's pythons, c.b. '92, \$200 each; two male and one female Venezuelan red-tail boas, c.b. '92, \$350 each; two female common Colombian x red-tail boas, c.b. '91, \$250 each; 8' male yellow/green amethystine python, tame, \$250; female Costa Rican milksnake (stuarti), c.b. '92, \$300; two female albino northern pine snakes, c.b. '92, \$140 each; two male Louisiana pine snakes, c.b. '92, \$450 each; two female desert kingsnakes (exceptional splendida), c.b. '92, \$50 each; three male Pueblan milksnakes, c.b. '92, \$75 each; female Pueblan milksnake (exceptional), c.b. '92, \$125. If you have changed your address within the last year and would like to remain on my mailing list, or if you are a new customer, please contact Terry L. Vandeventer, 1016 Andover Street, Clinton MS 39056, (601) 924-1409.

For sale: ALBINO BURMESE PYTHONS. Large number of exceptional babies due to hatch the 2nd and 4th weeks of May. Unrelated hatchlings from different clutches will be available. One clutch is from a huge 16-17' female. All eggs maternally incubated. Write or call for a free list of single prices and quantity discounts. Kelly Haller, 4236 SE 25th Street, Topeka KS 66605, (913) 234-3358 after 6 P.M. weekdays or all day Sat. and Sun.

For sale: Burmese pythons, \$55 each; albino Burmese pythons, \$150 each; green Burmese pythons, \$200 each; hetero for green Burmese pythons, \$80 each; normal carpet pythons, \$125 each; jungle phase carpet pythons, \$250 each; Colombian red-tail boas, \$60 each. All snakes are captive born. Quantity discounts are available. Give us a call—let's talk. Matthew and Susan Rodda, (503) 743-4594. [OR]

For sale: Argentine boas, Boa constrictor occidentalis, born 6/23/92, from unrelated parents, \$1500/pair. Bill Brant, (904) 495-9024. [FL]

Advertisements (cont'd)

For sale: <u>BRAZILIAN RAINBOW BOAS</u>, 1993 babies from iridescent "Lamar strain" orange adults, \$225 each; <u>PUEBLAN MILKSNAKES</u>, beeeding colony hand picked from many breeders around the country; excellent banding, brilliant colors and selectively bred. Grades A, B & C (\$95, \$75 & \$55). 20% deposit assures best selection. Send SASE for 1993 price list. Scott P. Schuett, 1820 Bigelow St., Toledo OH 43613, (419) 473-0518.

Wanted: Did anyone make a videotape of a two-headed snake that appeared on TV recently? I would like to make a duplicate. William D. Joy, (214) 369-2625. [TX]

Wanted: Solomon Island eyelash frogs, Ceratobatrachus guentheri. We would also like to talk to anyone with experience in keeping/breeding these frogs. Don & Rosanne LeBaige, 102 Blueberry Court, Kingsland GA 31548, (912) 729-9523.

Wanted: melanistic hognose snakes, aberrant garter snakes; rough green snakes. Joe Monahan, 605 E. Burlington St., Iowa City IA 52240, (319) 337-9242.

Wanted: male sungazer, Cordylus giganteus. Gary Fogel, Chicago IL, (312) 935-6938.

Wanted: information on leopard geckos. Send a SASE for a questionnaire. Brett DePoister, R.D. 2, Box 2158, Fleetwood PA 19522.

Wanted: suppliers for native and exotic lizards. Ray's Reptiles, P.O. Box 4732, Lincoln NE 68504-0473. Call Mon. - Sat., (402) 477-1975, eves best.

Wanted: c.b. Tiliqua nigrolutea, Phelsuma sundbergi and nicely colored eastern collared lizards. Jim Zaworski, P.O. Box 2922, Carbondale IL 62902, (618) 985-6220, leave message on machine.

Wanted: unusual gecko species (Naultinus, Geckonia, Teratoscincus, Microlepis, Phyllurus, Ptenopus, Coleonyx, Diplodactylus, Oedura, Chondrodactylus, Palmatogecko and Gonatodes). Roman, (215) 742-8385.

Wanted: serious snake collectors interested in unusual colubrids, including various rare house snakes, rat snakes, gopher snakes and many others. Please send a SASE for a current stock list and '93 price list. Vince Scheidt, P.O. Box 22885, San Diego CA 92192-2885.

Wanted: the CHS Book Service is always in need of styrofoam "peanuts" for packaging shipments. Don't discard them; recycle by bringing them to Joan Moore at any monthly meeting.

Line ads in this publication are run free for CHS members — \$2 per line for nonmembers.

Any ad may be refused at the discretion of the Editor.

Submit ads to: Michael Dloogatch, 6048 N. Lawndale Avenue, Chicago IL 60659, (312) 588-0728.

News and Announcements

POSTER COMMEMORATES JAMAICAN IGUANA SURVIVAL

The Fort Worth Zoo is offering a beautiful full-color poster of the Jamaican iguana, *Cyclura collei*, which was unveiled at the recent International Symposium and Workshop on the Conservation of the Jamaican Iguana held in Kingston, Jamaica, 22–24 February 1993. Once feared extinct, the Jamaican iguana was rediscovered in 1990, and a small remnant population still clings to existence in the undisturbed forests of the remote Hellshire Hills. Superb in color quality, this 17" x 22" poster features three photographs of the Jamaican iguana and its habitat.

A limited number of posters are available for \$10 each plus \$2.50 for postage and mailing tube. Proceeds generated by the sale of posters will directly support the ongoing field research and conservation efforts in Jamaica. To order please send a check or money order for \$12.50 payable to the FORT WORTH ZOOLOGICAL ASSOCIATION. Mail to: Rick Hudson, Reptile Department, Fort Worth Zoo, 1989 Colonial Parkway, Fort Worth TX 76110.

NEW HERPETOLOGICAL JOURNAL ANNOUNCED

The International Herpetological Symposium, Inc., announces the publication of *Herpetological Natural History*, a peer-reviewed journal devoted to all aspects of the natural history of amphibians and reptiles.

The editorial staff seeks original manuscripts that provide new theoretical and/or empirical insights within the broad topics of behavior, ecology, evolution and life history. Both field and laboratory studies are welcomed, as are review papers. Papers will be published as either feature articles or notes. A book review section will appear in future issues.

Herpetological Natural History initially will be published semi-annually. Authors should expect accepted papers to be published within 6 to 12 months. Manuscripts and requests for information should be directed to: Gordon W. Schuett, General Editor, Herpetological Natural History, Department of Zoology and Physiology, University of Wyoming, Laramie WY 82071, USA.

Subscription to *Herpetological Natural History* is \$20 per year. International surface postage is included; air mail quotes will be provided upon request. Payment by check or money order in U.S. dollars should be made out to INTERNATIONAL HERPETOLOGICAL SYMPOSIUM, INC., and directed to: David Hulmes, Treasurer, International Herpetological Symposium, Inc., 361 Van Winkle Avenue, Hawthorne NJ 07506, USA.

MARCH HERP-ACROSTIC CONTEST WINNER

For the second month in a row Joe Dinardo's entry was picked, winning him a 1-year extension to his CHS membership.

UPCOMING MEETINGS

The next meeting of the Chicago Herpetological Society will be held at 7:30 P.M., Wednesday, May 26, at the Field Museum of Natural History, Roosevelt Road at Lake Shore Drive, in Chicago. Noted Australian herpetologist, Dr. Harold Heatwole, currently with the University of North Carolina Zoology Department, will speak about his experiences "Diving with Sea Snakes."

The June 30 meeting will be our annual Show & Tell. Be sure not to miss it.

We are required to use the entrance on the west side of the museum. The main entrances at the north and south ends of the building will not be open. We have permission to use the staff parking lot to the west of the museum. Entrance to this lot is from McFetridge Drive, the wide street just to the south which lies between the museum and Soldier Field. There is also ample free parking available in the lot to the north of the museum.

Those of you who use public transportation can take the #146 bus directly to the museum. Unfortunately, this bus does not operate after 9:00 P.M. However, after the program anyone needing a ride to a bus or rapid transit stop will have no trouble finding one—just ask any board member.

Turtle Club

The Chicago Turtle Club will meet Sunday, May 23, 1:00-3:30 P.M., at the Emmerson Park Fieldhouse, 1820 W. Granville Avenue, Chicago.

DUES INCREASE

For those of you who have enjoyed the CHS Bulletin over the years, we would like to be able to continue with the same quality you have come to expect and deserve. However, after much discussion and research the CHS Board of Directors has reached the conclusion that the only way of accomplishing this is to raise the membership rates.

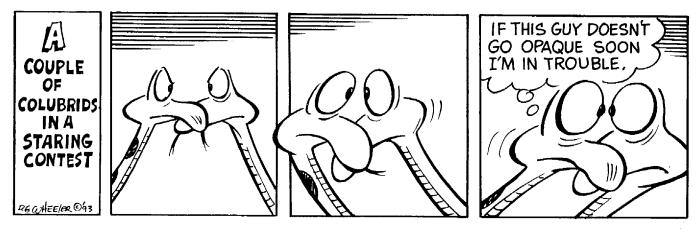
For six years, you have received the *Bulletin* each month without an increase in the membership dues. Unfortunately inflation, postal rate increases, and higher publishing costs have finally caught up with us. Because of this, the following dues schedule will go into effect September 1, 1993: Individual Membership, \$22.00; Family Membership, \$25.00; Sustaining Membership, \$50.00; Contributing Membership, \$100.00; and Institutional Membership, \$38.00.

Please remember that your dues only cover the cost of the *Bulletin*. All other programs and expenses are covered by other sources of income. We thank you for your cooperation and continued support.

WISCONSIN HERP ATLAS WANTS YOU!

With another field season upon us, anyone doing field work in Wisconsin can contribute to the Wisconsin Herp Atlas Project. Now in its eighth year, the Wisconsin Herp Atlas has documented nearly 400 new county records. The Herp Atlas depends largely upon the volunteer efforts of hundreds of people who are willing to report their herp sightings, salvage roadkills and photograph their finds. For a full reporting package with species maps, report forms and a want list for each county, send your name and address to the project coordinator: Gary Casper, Milwaukee Public Museum, 800 W. Wells Street, Milwaukee WI 53233. (414) 278-2766. FAX (414) 278-6100. Email gsc@csd4.uwm.edu.

THE ADVENTURES OF SPOT



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