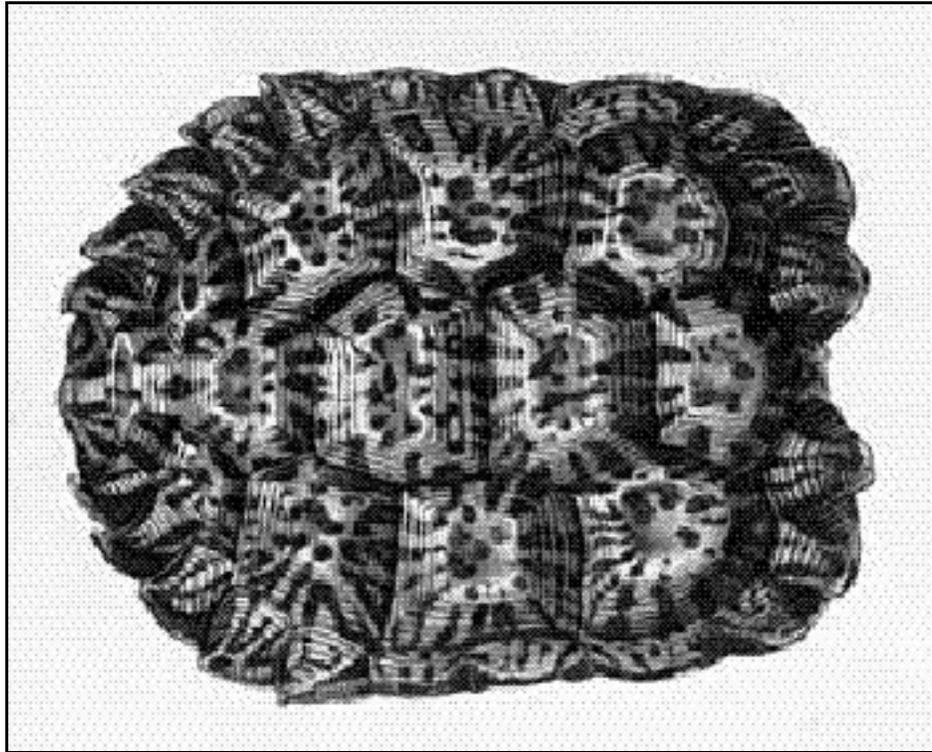

BULLETIN

of the

Chicago Herpetological Society



Volume 37, Number 1
January 2002



BULLETIN OF THE CHICAGO HERPETOLOGICAL SOCIETY

Volume 37, Number 1

January 2002

Male Aggression in Captive Namaqualand Speckled Padlopers, <i>Homopus signatus signatus</i>	Victor J. T. Loehr	1
Concerning an Albino Foothill Yellow-legged Frog, <i>Rana boylei</i> (Amphibia, Anura, Ranidae), from Red Cap Creek Drainage, Humboldt County, California	Bradford R. Norman and Monty Mollier	2
Observations on the Chihuahua Fringe-toed Lizard, <i>Uma parapygas</i>	Julio A. Lemos-Espinal, David Auth, David Chiszar and Hobart M. Smith	4
Book Review: <i>The Last River Rat: Kenny Salwey's Life in the Wild</i> by J. Scott Bestul and Kenny Salwey	Philip A. Cochran	8
HerPET-POURRI	Ellin Beltz	9
Unofficial Minutes of the CHS Board Meeting, December 14, 2001		11
Herpetology 2002		13
The Tympanum		15
Advertisements		16
Chicago Herpetological Society Statement of Income and Expense		17
News and Announcements		18

Cover: Carapace of *Testudo* [=*Homopus*] *signata*. Drawing from Plate 20 of *A Monograph of the Testudinata* by Thomas Bell, 1832–1836.

STAFF

Editor: Michael A. Dloogatch
Advertising Manager: Ralph Shepstone

2002 CHS Board of Directors

Jack Schoenfelder, President
Lori King, Vice-President
Greg Brim, Treasurer
Emily Forcade, Recording Secretary
Steve Sullivan, Corresponding Secretary
Michael Redmer, Publications Secretary
Michael A. Dloogatch, Membership Secretary
Dan Bavirsha, Sergeant-at-Arms
Tom Anton, Member-at-Large
Darin Croft, Member-at-Large
Ron Humbert, Member-at-Large
Jenny Vollman, Member-at-Large

The Chicago Herpetological Society is a nonprofit organization incorporated under the laws of the state of Illinois. Its purposes are education, conservation and the advancement of herpetology. Meetings are announced in this publication, and are normally held at 7:30 P.M., the last Wednesday of each month.

Membership in the CHS includes a subscription to the monthly *Bulletin*. Annual dues are: Individual Membership, \$22.00; Family Membership, \$25.00; Sustaining Membership, \$50.00; Contributing Membership, \$100.00; Institutional Membership, \$38.00. Remittance must be made in U.S. funds. Subscribers outside the U.S. must add \$12.00 for postage. Send membership dues or address changes to: Chicago Herpetological Society, Membership Secretary, 2060 N. Clark Street, Chicago, IL 60614.

Manuscripts published in the *Bulletin of the Chicago Herpetological Society* are not peer reviewed. Manuscripts should be submitted, if possible, on IBM PC-compatible or Macintosh format diskettes. Alternatively, manuscripts may be submitted in duplicate, typewritten and double spaced. Manuscripts and letters concerning editorial business should be sent to: Chicago Herpetological Society, Publications Secretary, 2060 N. Clark Street, Chicago, IL 60614. **Back issues** are limited but are available from the Publications Secretary for \$2.50 per issue postpaid.

Visit the CHS home page at <<http://www.Chicagoherp.org>>.

The *Bulletin of the Chicago Herpetological Society* (ISSN 0009-3564) is published monthly by the Chicago Herpetological Society, 2060 N. Clark Street, Chicago IL 60614. Periodicals postage paid at Chicago IL. **Postmaster:** Send address changes to: Chicago Herpetological Society, Membership Secretary, 2060 N. Clark Street, Chicago IL 60614.

Male Aggression in Captive Namaqualand Speckled Padlopers, *Homopus signatus signatus*

Victor J. T. Loehr
Homopus Research Foundation
Nipkowplein 24
3402 EC IJsselstein
Netherlands
E-mail: loehr@homopus.org

The limited data available on life-history of the Namaqualand speckled padloper (*Homopus s. signatus*) provide contradictory information on male aggression. It is well known that male–male fights are common in the congener *H. areolatus* (Gorseman, 1980; Barzyk, 1994; Boycott and Bourquin, 2000; pers. obs.), but this has not been noted in captive *H. s. signatus* (Palmer, 1994; Loehr, 1999; T. Licitra, pers. com.). Boycott and Bourquin (2000) also do not mention male aggression in *H. s. signatus*. However, during a field study on the subspecies in Namaqualand in 2000, an observation was made of two males in combat (Loehr, in prep.). Patterson (1991) mentions vigorous fights in *Homopus* in general.

The studbook breeding program on *H. s. signatus* at the Homopus Research Foundation maintains several F₁ captive-bred males. On 2 August 2001, 1730 h, one male (studbook number 0006, born on 8 November 1996) was placed in the enclosure of a second male (0010, 22 October 1997) in a small experiment to monitor their behavior. This moment coincided with late summer climatic conditions and both males had been housed in their respective enclosures for more than one year. They were both adults and had never been housed with other adult tortoises previously. The introduced specimen was placed opposite to (facing) the inhabiting specimen. The enclosure concerned (60 × 50 × 40 cm [l × w × h]) had several hiding places and wood and stone structures, but differed in set-up from the enclosure in which 0006 had been housed.

Upon releasing tortoise number 0006, number 0010 started “sniffing” head, forelimbs and hind limbs of the introduced tortoise. Tortoise 0006 responded by slight vertical head bobbing movements, and for the rest remained still. Tortoise 0010 lost interest for approximately 30 sec, but after that the two animals sniffed each other’s heads for a long period of time, while both making slight head bobbing movements.

Male 0006 walked away from 0010, traversing the anterior part of the enclosure, followed by 0010. Again the two tortoises sniffed each other’s heads for approximately 5 min, intensifying the head bobbing, after which 0006 moved away, again followed by 0010. Gradually tortoise 0010 became more insistent, forcing 0006 in a backwards direction. The latter specimen increased head bobbing intensity and opened its mouth in what seemed a threatening pose. The red tongue of 0006 was clearly visible at the anterior side of the beak. Tortoise 0010 did not change its behavior, continued to sniff and showed only very weak head bobbing. When 0006 had got stuck in a corner of the enclosure, it struck at 0010 for several times, with approximately 2–3 sec between strikes. It appeared to aim for the head, and occasionally the forelimbs of 0010. During the 10–15 strikes that followed, 0010 was forced backwards and released 0006 from the corner of the enclosure. As striking by 0006 continued it was decided to separate the two tortoises at 1800 h.

It is unclear whether *H. s. signatus* should be considered a species of which males should be housed in separate enclosures in captivity (unless the enclosures are very large). In the situation described by Loehr (1999), one male died shortly after importing from the wild. This was attributed to the high age of the male, possibly causing a degraded ability to adapt. Since two males were housed together for several weeks it could also not be excluded that stress had been a factor of importance. Palmer (1994) kept his specimens in a large outdoor enclosure that may have been large enough for two males. It seems advisable to monitor situations in which multiple male *H. s. signatus* are housed together intensively to identify stress or even combat, before it may have an effect on the health of the specimens concerned. A QuickTime movie file (*.mov) of the combat described in the current article is kept by the author.

Literature Cited

- Barzyk, J. 1994. Husbandry and captive breeding of the parrot-beaked tortoise (*Homopus areolatus*). *Chelonian Conservation and Biology* 1:138-141.
- Boycott, R. C., and O. Bourquin. 2000. The southern African tortoise book. A guide to southern African tortoises, terrapins and turtles. Privately published, Hilton.
- Gorseman, P. 1980. Opmerkingen over biotoop en voortplanting van *Homopus areolatus*. *Lacerta* 38:107-111.
- Loehr, V. J. T. 1999. Husbandry, behavior and captive breeding of the Namaqualand speckled padloper (*Homopus s. signatus*). *Chelonian Conservation and Biology* 3:468-473.
- Palmer, M. 1994. The speckled tortoise, *Homopus signatus*, in captivity. *Tortuga Gazette* 30:1-5.
- Patterson, R. 1991. Snakes and other reptiles of southern Africa. Cape Town: Struik Publishers.

Concerning an Albino Foothill Yellow-legged Frog, *Rana boylei* (Amphibia, Anura, Ranidae), from Red Cap Creek Drainage, Humboldt County, California

Bradford R. Norman*
California Cooperative Fishery Research Unit
Humboldt State University
Arcata, CA 95521

Monty Mollier
P.O. Box 281
Orleans, CA 95556

Abstract

One recently transformed, fully albino foothill yellow-legged frog, *Rana boylei*, was discovered in September 1994 while conducting habitat and ectotherm inventories within the Red Cap Creek drainage of Humboldt County, in northwestern California. The specimen was captured, examined, photographed, measured and released. Photographic vouchers, along with a description of the specimen, and a discussion of its significance in light of further observations on *R. boylei*, in the drainage of the albino's origin, are presented.

Introduction

Apparently no records of fully albinistic foothill yellow-legged frogs exist (Hensley, 1959; Dyrkacz, 1981; Nussbaum et al., 1983; Bechtel, 1995). Dyrkacz (1981:12) reports but a single specimen of *R. boylei* ever being reported that exhibited partial albinism (Switak, 1967). That specimen, collected as a tadpole from Portola Valley, California, was described as an "albino with pigmented blotches on body" (Dyrkacz, 1981).

On 19 September 1994, while conducting habitat inventories in the Red Cap Creek drainage of extreme northeastern inland Humboldt County, California, we collected a fully transformed (Stage 46 of Gosner, 1960), juvenile foothill yellow-legged frog which exhibited complete albinism with pink eyes (see color photographs at www.chicagoherp.org). Normally colored, fully transformed juveniles and transforming larval frogs of the same species were abundant in the area and had been throughout the previous summer (pers. obs., both authors).

The albino was found in a cobble-dominated, low-gradient riffle habitat unit [Natural Sequence Order #155 (from the confluence with the Klamath River) of the 1994 Red Cap Creek Watershed Analysis Habitat Inventory of Mollier and Norman (1994, 1996) as directed by Cyr (1994, personal communication); see also USFS, 1996].

The sex of the albino specimen was not determined. The specimen was photographed under available room light in conjunction with two low-wattage incandescent bulbs manually placed in a downward stereo position above the specimen at a distance of ca. 20 cm.

Description

A detailed description of the albino specimen in life follows: patellar, elbow, and ankle regions are completely white indicating areas of dense sub-dermal cartilage visible through a pigmentless epidermis; distinct white edge of upper lip contrasts with the overall pinkish-orange appearance of the head and body which is more pink in areas between the lighter, indistinct dorsolateral folds, on the trunk laterally, and at the

tips of the toes and across the dorsal surfaces of the legs, indicating the more highly vascularized nature of these regions sub-dermal to the completely pigmentless epidermis; iris appears white and pupils pink; dorsal surfaces covered with minute, slightly raised, lighter pinkish skin glands (appearing as small warts) which appear less vascularized than the skin between them; ventral surfaces of the abdomen, thorax and head are white showing less sub-dermal vascularization due to the overall thickness of the ventral epidermis; ventral surfaces of the limbs are more pinkish-orange as in the dorsal surfaces indicating a thinner pigmentless epidermis and the effects of subdermal vascularization within the limb musculature.

Discussion

Modern resource managers are continually trying to elucidate ways in which overall watershed health might be quantified, measured, assessed, or estimated. The discovery of a fully-albino specimen within a population, when viewed as a result of standard Mendelian means of origin, portrays an indirect measure, of sorts, of the reproductive success of a population in that, under such means, albino births occur at a rate of about 1 in 20,000 within an hypothetically healthy vertebrate population (Villem and Dethier, 1971). Bechtel (1995: 57; see also p. 69) states that incidence of albinism in vertebrates generally is likely "to be in the order of 1:10,000 to 1:30,000 in the general populations though it is likely is it not necessarily the same for all species."

If we assume that overall health of an environment will maintain, to a degree, or contribute to the overall health or reproductive rate of a given population within it, then this recent discovery of a fully-albino foothill yellow-legged frog in the Red Cap Creek watershed, tends to support an hypothesis that the population of that species there has had continued reproductive success in the area, at least during the 1994 through 1995 observational period. This indirectly suggests that, at least the habitat requirements of the frogs are being met in the drainage under discussion. And thus, perhaps such observations indirectly suggest healthy levels of environmental diversity in the area.

* Present Address: 1225 Freshwater Road, Eureka, CA 95503. E-mail: bnorman@fs.fed.us.

As regarding the hypothesis that *Rana boylei* has exhibited reproductive success in the drainage our extended observations throughout 1994 (16 August to 25 October) and 1995 (year-round) confirm this (Mollier, Cyr and Norman, unpublished data). Regarding the transformed stage of the albino frog and its assuredly more conspicuous coloration in comparison with its normally-colored siblings, it is remarkable that the albino had survived the threat of abundant avian, reptilian, and mammalian predators in the Red Cap Creek drainage as long as it did before it was discovered. This fact seems also to subjectively support the hypothesis that the *R. boylei* population in that area is a relatively healthy one and that it exhibits a strong reproductive rate.

Acknowledgments

The following persons and entities assisted in the preparation of this report: Gene Graber, John Larson and LeRoy Cyr of the U.S. Forest Service, Orleans Ranger District (ORD) encouraged the work; Kevin Kuehn provided field assistance; Delores Neher typed the manuscript; Maureen Tebbe, ORD, initially photographed the albino specimen; the staffs of the ORD, Six Rivers National Forest, and the California Cooperative Fishery Research Unit provided logistical support. Monty Mollier first spotted the albino specimen and encouraged its release post-examination. Thomas A. Kirk reviewed the manuscript.

Literature Cited

- Bechtel, H. B. 1995. Reptile and amphibian variants: Colors, patterns, and scales. Malabar, FL: Krieger Publishing.
- Dyrkacz, S. 1981. Recent instances of albinism in North American amphibians and reptiles. SSAR Herp. Circular No.11.
- Gosner, K. 1960. A simplified table for staging anuran embryos and larvae with notes on identification. Herpetologica 16(2):183-190.
- Hensley, M. 1959. Albinism in North American amphibians and reptiles. Publ. Mus. Michigan State Univ. Biol. Ser.:1(4):135-159.
- Mollier, M., and B. Norman. 1994. The Red Cap Creek Watershed Analysis Habitat Inventory conducted August through October. U.S. Forest Service, Six Rivers National Forest, unpublished files, Orleans Ranger District office, Orleans, CA.
- Mollier, M., and B. Norman. In prep. A checklist of the avian taxa encountered during habitat inventories in the Red Cap Creek drainage of Humboldt County, California: 1994.
- Nussbaum, R., E. Brodie, Jr., and R. Storm. 1983. Amphibians and reptiles of the Pacific Northwest. Moscow, ID: Univ. of Idaho Press.
- Stebbins, R. C. 1985. A field guide to western reptiles and amphibians. Second Edition. Boston, MA: Houghton Mifflin Company.
- Switak, K. H. 1967. Notes on albino reptiles and amphibians at Steinhart Aquarium. Int'l Zoo Yearbook 7:228.
- U.S. Forest Service. 1996. An analysis of the Red Cap Creek Watershed of Humboldt County, California. Unpublished draft of the Six Rivers National Forest, Orleans Ranger District report.
- Villee, C. A., and V. G. Dethier. 1971. Biological principles and processes. W. B. Saunders Company.

Observations on the Chihuahua Fringe-toed Lizard, *Uma parapygas*

Julio A. Lemos-Espinal¹, David Auth², David Chiszar³ and Hobart M. Smith⁴

Abstract

External morphology confirms the conclusion based on other sorts of data that *U. parapygas* and *U. exsul* are separate species. The literature on *U. parapygas* is summarized. Morphological data are given for large samples from the three states (Chihuahua, Coahuila, Durango) in which the two species are known.

In the some 42 years since *Uma parapygas* was described from the sand dunes of extreme southeastern Chihuahua (Williams et al., 1959), at least 39 articles have referred to the species, the latest of which we are aware in 2000. None, however, has added to the external morphological variation noted in the 18 specimens cited in the original description, except for the number of abdominal semeions (e.g., Morafka and Reyes, 1994).

We accordingly here add to that knowledge initially based on 23 specimens of *U. parapygas* taken by JLE from sand dunes near the type locality. Twenty-two, UBIPRO (Laboratorio de Ecología Unidad de Biotecnología y Prototipos, Escuela Nacional de Estudios Profesionales Iztacala, UNAM) 5108-13, 5137-44, 5148-55, are from 700 m NE Rancho La Soledad, 7 km SE Estación Carrillo, municipio Jiménez, Chihuahua (26°53'54.1"N, 103°51'22.4"W), 1136 m, 10–11 June 2000. One other was taken on sandy soil, not dunes, at Rancho La Soledad (UBIPRO 5121).

In addition to those 23, we have seen 91 specimens of the same species, for a total of 114, all from Chihuahua except as indicated otherwise: five from Rancho Robles (USNM); 34 from 3 mi E Carrillo (TNHC); 22 from 3 mi E Carrillo, on Cuatro Cienegas rd (TCWC); 29 (ROM) from Laboratorio del Desierto, Mapimí, Durango; and one (CM) from 14 mi SW El Oro at Salina (Laguna) del Rey, Coahuila, 3650 ft (museum codes from Leviton et al., 1985).

For comparison, we have examined a total of 212 *U. exsul* Schmidt and Bogert (1947), including 184 in the UCM from various localities in Coahuila (N Bilbao; 6 mi E Matamoros; 4.1, 5.8 and 7.4 mi. NW Viesca); three (ROM) from the Bilbao dunes, Coahuila; and 25 (ROM) possibly from Bilbao but erroneously labeled “between Nazas and Rodeo,” Durango.

Our present concern stems from the proposal on morphological grounds by Morafka (1977, 1982) and Pough et al. (1978) that *parapygas* is a subspecies of *exsul*. The first suggested that the two may not merit distinction at any taxonomic level. Their conclusions were based on supposed intergrades between the two taxa at Laguna del Rey, extreme southwestern Coahuila, and perhaps elsewhere. A photograph of six *U. parapygas* in Morafka and Reyes (1994) illustrates their interpretation of variation in number of the ventrolateral

bars (a key feature distinguishing the two species) as exemplifying “both individual asymmetries and intrademic variation.” Presumably such variation was the basis for the proposal of intergradation or inseparability of *U. exsul* and *U. parapygas*. Although most recent works accept specific rank for both taxa, no morphological refutation of conspecificity has appeared.

In reality the number of ventrolateral bars is virtually invariably two on each side in *U. parapygas*, and, as has long been understood, one in *U. exsul*, in the 114 and 212 specimens we examined of each taxon respectively, including those illustrated in Morafka and Reyes (1994). Two exceptions occurred in the *U. parapygas* examined, both from Mapimí, but none in the *U. exsul*. One specimen had one bar on each side and the other had one bar on one side, two on the other, although the posterior one was very small. In all others from Mapimí clearly two occurred.

What has cast doubt upon the consistency of number in *U. parapygas* is that in some specimens the posterior bar, on one or both sides, is small, weak or partially fused (toward midabdomen) with the anterior bar. We found those conditions in 28% of 110 specimens of *U. parapygas*, excluding the two exceptions mentioned above with one bar on one or both sides. The other two of the 114 specimens each had three bars on one side, the rear one small. In every other case by close examination the existence of two bars was confirmed. No such variation occurred in the ventrolateral bars of *U. exsul* in the 212 examined. The difference is categorical and strong evidence that the two taxa are different species.

Substantiating differences exist in several other characters, as indicated in the original description of *U. parapygas* (Williams et al., 1959), although none are categorical. In the material examined, the femoral pores of *U. parapygas* varied 25–37 ($\bar{x} = 30.8$, $N = 110$), and 88% had 29 or more, as opposed to 15–30 ($\bar{x} = 24.7$, $N = 187$), with 5% having 29 or more in *U. exsul*. The difference is highly significant ($t = 20.30$, $df = 243$, $p < 0.01$). Of special interest in both taxa is that several scales in the femoral pore rows had no pore and were generally smaller than the pore scales, were often superimposed, and thus were not counted. The intercalary scales were present more frequently distally than proximally. The femoral pores of females and all except the largest males were minute in both taxa.

1. Laboratorio de Ecología, Unidad de Biología, Tecnología y Prototipos (UBIPRO), Escuela Nacional de Estudios Profesionales Iztacala, UNAM, Apartado Postal 314, Avenida de Los Barrios s/n, Los Reyes Iztacala, Tlalnepantla, Estado de México, 54090 México. E-mail: lemos@servidor.unam.mx

2. 425 N.E. 7th Street, Gainesville, FL 32601. E-mail: davidauth@hotmail.com

3. Department of Psychology, University of Colorado, Boulder, CO 80309-0345. E-mail: chiszar@clipr.colorado.edu

4. Department of EPO Biology and Museum, University of Colorado, Boulder, CO 80309-0334. E-mail: hsmith@spot.colorado.edu

The number of interfemoral pore scales also differs between the two species, although such counts are not as objective as the femoral pore counts. In *U. paraphygas*, they varied 14–25 ($\bar{x} = 18.1$, $N = 67$), with 85% having 19 or fewer, as compared with 18–27 ($\bar{x} = 21.9$, $N = 105$), 15% having 19 or fewer, in *U. exsul*. The difference is highly significant ($t = 11.14$, $df = 142$, $p < 0.01$).

The number of subcaudal bars is 6–12 ($\bar{x} = 7.6$, $N = 62$), 80% with 7 or more, in *U. paraphygas*, as opposed to 2–8 ($\bar{x} = 5.5$, $N = 108$), 8% with 7 or more, in *U. exsul*. The difference is highly significant ($t = 10.79$, $df = 107$, $p < 0.01$). In both taxa even the smallest or weakest evidence of a bar was counted. In the material examined, 43% of 104 had an incomplete tail in *U. paraphygas*, as compared with 41% of 186 *U. exsul*.

U. exsul appears to reach a larger size than *U. paraphygas*. In the former, 92 mm SVL was the maximum recorded, with four measuring 90 mm or more, and 32 measuring 70 mm or more out of 111. In the latter, 86 mm was the maximum, only two reaching 80 mm or more, all the rest measuring 79 mm or less; 24 out of 114 measured 70 mm or more. Males were the largest, but we did not determine the largest female because of the liability to err in distinguishing the sexes, on the basis of postanal scale size, except at the larger sizes. Because of this problem, we conducted no statistical tests on SVL.

The smallest *U. exsul*, 33 mm SVL, was taken 15 August; otherwise the smallest was 48 mm SVL in the 109 measured that were taken 9–15 August. The smallest in 50 specimens taken 8 June was 51 mm SVL. In *U. paraphygas*, 48 mm SVL was the smallest except for 14 out of 34 taken 19 July, that measured 29–40 mm SVL, and three out of 29 taken 30 June through 9 July, that measured 29–32 mm SVL. It thus appears that in both species hatching occurs mostly in July, growth of hatchlings is rapid, and sexual maturity is reached in one year.

Black blotches or streaks on the anterior surface of the thigh are more numerous (3, vs 2) in *U. paraphygas* than in *U. exsul*. In the former, they almost always extend over one-half the length of the thigh from the groin, whereas in the latter they are more confined to the proximal surface.

As indicated by Williams et al. (1959), the two species differ in color in life. Field observations by JLE noted that *U. exsul* is more colorful than *U. paraphygas*, the former being yellowish with some areas of orange, whereas the latter is reddish. No difference in color is apparent in the preserved specimens, although *U. exsul* tends to be lighter and less boldly marked than *U. paraphygas*.

During the period of early work on the complex, numerous specimens of *U. paraphygas* in Chihuahua and Durango were entered in various museums erroneously as *U. exsul*. However, even on grounds of external morphology, our analyses indicate that the two taxa are of specific rank. On other grounds each has consistently been accepted at the species level, beginning most importantly with Zalusky et al. (1980), who studied the skull and dentition of all *Uma*. DeQueiroz (1992) and Murphy and Doyle (1998) agreed on molecular grounds.

We agree on the basis of one specimen (no others could be found) that the Laguna del Rey population represents *U. paraphygas*, as concluded by Pough et al. (1978), although they there recorded the taxon as *U. exsul paraphygas*. Therefore both species (as now ranked) occur in Coahuila, and only *U. paraphygas* in Chihuahua. The latter species ranges also into northeastern Durango (see list of specimens examined). Essential continuity of dunes or sandy soil extends throughout the range of that species from extreme southwestern Coahuila through southeastern Chihuahua to extreme northeastern Durango, but a rocky, topographically varied distance of some 45 km intervenes between the ranges of the two species; they are isolated from each other.

About 60 km S of the range of *U. exsul* is an isolated “Magnetic Dunes” in northeastern Durango. Apparently *Uma* does not occur on them (JLE, field observations).

In the articles previously mentioned, Morafka (1977) and Pough et al. (1978) summarized the known range of *U. paraphygas*. Morafka (1982) noted that it is a facultative associate of the Bolson tortoise; and Pough et al. (1978) thoroughly reviewed its ecology and behavior.

The species is dealt with otherwise in Adest (1977, 1978a, b), proposing on the basis of electrophoretic studies that all sand lizards should be placed in *Callisaurus*; the species is only mentioned in Axtell and Webb (1995), Cornett (1983), and Williams et al. (1960); Carpenter (1967, 1986) reported display patterns; Cox and Tanner (1977) regarded *U. paraphygas* as valid; DeQueiroz (1982) noted its scleral bones, as did Underwood (1984), misspelling the name as *U. paraphygos*; Earle (1962) dealt with the middle ear; Etheridge (1964) reviewed skeletal morphology and systematic relationships; Ferguson (1977) reviewed the literature on behavior; Flores and Gerez (1994), Justo (1994), and Liner (1994, 2000) listed the species; Gadsden and Guerra (1996) and Guerra (1995, 1996) dealt with home range; Gadsden, Méndez de la Cruz and Casas-Andreu (1993) and Gadsden et al. (1993) reviewed reproduction; Gadsden and Palacios (1997) and Palacios and Gadsden (1994a, b) dealt with food; Goldberg et al. (1998) recorded parasites; Luke (1986) examined the toe fringes; Morafka et al. (1992) discussed biogeography; Smith et al. (1964) listed types; Smith and Smith (1976, 1993) reviewed the literature; Tanner (1970) mentioned the type and type locality; and Trepanier (1998) discussed conservation.

Acknowledgments

JLE is indebted for grants awarded by the Comisión Nacional para el Conocimiento y Uso de la Biodiversidad, under projects U003 and X004. We are all much indebted for the loan of specimens from CM (Stephen P. Rogers), TCWC (Dr. Kathryn Vaughan), ROM (Dr. Robert W. Murphy), TNHC (Jessica Morales), UCM (Rosanne Humphrey), and USNM (Dr. Traci Hartsell). Dr. Ernest A. Liner was of much help with the literature, and Dr. Robert Webb kindly shared with us his discovery that the specimens of *U. exsul* supposedly from Durango have wrong locality data and presumably came from Coahuila.

Literature Cited

- Adest, G. A. 1977. Genetic relationships in the genus *Uma* (Iguanidae). *Copeia* 1977:47-52.
- . 1978a. The relations of the sand lizards *Uma*, *Callisaurus*, *Cophosaurus* and *Holbrookia*: An electrophoretic study. Abstr. ASIH-HL-SSAR Tempe Mtg: 1.
- . 1978b. The relations of the sand lizards *Uma*, *Callisaurus* and *Holbrookia* (Sauria: Iguanidae): An electrophoretic study. Diss. Abst. Int. (B) 39:36.
- Axtell, R. W., and R. G. Webb. 1995. Two new *Crotaphytus* from southern Coahuila and the adjacent states of Mexico. *Bull. Chicago Acad. Sci.* 16(2):1-15.
- Carpenter, C. C. 1967. Display patterns of the Mexican iguanid lizards of the genus *Uma*. *Herpetologica* 23:285-293.
- . 1986. An inventory of the display-action-patterns in lizards. *Smithsonian Herp. Inf. Serv.* (68):1-18.
- Cornett, J. W. 1983. A masterpiece of adaptation: *Uma*, the fringe-toed sand lizard. *Pacific Discovery* 36:2-10.
- Cox, D. C., and W. W. Tanner. 1977. Osteology and myology of the head and neck regions of *Callisaurus*, *Cophosaurus*, *Holbrookia*, and *Uma* (Reptilia: Iguanidae). *Great Basin Nat.* 37:35-56.
- DeQueiroz, K. 1982. The scleral ossicles of sceloporine iguanids: A reexamination with comments on their phylogenetic significance. *Herpetologica* 38:302-311.
- . 1992. Phylogenetic relationships and rates of allozyme evolution among the lineages of sceloporine sand lizards. *Biol. J. Linnean Soc.* 45:333-362.
- Earle, A. M. 1962. The middle ear of the genus *Uma* compared to those of the other sand lizards. *Copeia* 1962:185-188.
- Etheridge, R. E. 1964. The skeletal morphology and systematic relationships of sceloporine lizards. *Copeia* 1964:610-631.
- Ferguson, G. W. 1977. Social displays of reptiles. Pp. 405-554 *In*: C. Gans and D. W. Tinkle, editors, *Biology of the Reptilia*. Volume 7, Ecology and Behaviour A. New York: Academic Press.
- Flores Villela, O., and P. Gerez. 1994. Biodiversidad y conservación en México. Vertebrados, vegetación y uso del suelo. Edición segundo. Comisión Nacional para el Conocimiento y uso de la Biodiversidad, and UNAM, México, D.F.
- Gadsden Esparza, H., and M. G. Guerra. 1996. Home range in a lizard guild in the dunes of the Biosphere Reserve of Mapimí, Durango (México). Abstracts 1996 SSAR Meetings, Lawrence, Kansas: 50.
- Gadsden Esparza, H., F. R. Méndez de la Cruz and G. Casas-Andreu. 1993. Reproductive pattern of an endangered Mexican desert lizard (*Uma parapygas*). Abstracts 1993 ASIH/HL/LFC/AES Meetings, Austin, Texas: 43.
- Gadsden Esparza, H., F. R. Méndez de la Cruz, R. Gil-Martínez and G. Casas-Andreu. 1993. Patrón reproductivo de una lagartija (*Uma parapygas*) en peligro de extinción. *Bol. Soc. Herp. México* 5:42-50.
- Gadsden Esparza, H., and L. E. Palacios-Orona. 1997. Seasonal dietary patterns of the Mexican Fringe-toed Lizard (*Uma parapygas*). *J. Herpetology*. 31:1-9.
- Goldberg, S. R., C. R. Bursey and H. Gadsden Esparza. 1998. *Uma exsul*, *Uma parapygas* (Fringe-toed Sand Lizard, Chihuahua Fringe-toed lizard). *Endoparasites. Herpetological Rev.* 29:240.
- Guerra Mayandón, G. 1995. Ambito lagareño de un gremio de lagartijas en las dunas de La Reserva de la Biósfera de Mapimí, Durango. Unpublished Ph.D. Diss. UNAM, Facultad de Ciencias, Estudios de Pósgrado, México, D.F.
- . 1996. Home range in a lizard guild in the dunes of the Reserve of the Mapimí Biosphere, state of Durango, México. *Bol. Soc. Herp. México* 7:17-18.
- Justo Sierra, C. 1994. *Diario oficial de la Federación. Reptiles y anfibios.* 488:37-50.
- Leviton, A. E., R. H. Gibbs, Jr., E. Heal and C. E. Dawson. 1985. Standards in herpetology and ichthyology: Part I. Standard symbolic codes for institutional resource collections in herpetology and ichthyology. *Copeia* 1985:802-832.
- Liner, E. A. 1994. Scientific and common names for the amphibians and reptiles of Mexico in English and Spanish. *Soc. Study Amph. Rept. Herp. Circ.* 23.
- . 2000. Type descriptions and type publications of Hobart M. Smith, 1933 through June, 1999. *Smithsonian Herp. Inf. Serv.* 127.
- Luke, C. 1986. Convergent evolution of lizard toe fringes. *Biol. J. Linnean Soc.* 27:1-16.

- Morafka, D. J. 1977. A biogeographical analysis of the Chihuahuan Desert through its herpetofauna. *Biogeographica* 9.
- . 1982. The status and distribution of the Bolson tortoise (*Gopherus flavomarginatus*). Pp. 71-94. *In*: R. Bury, editor, North American tortoises: Conservation and ecology. USDI Fish Wildlife Serv., Wildlife Res. Rept. (12).
- Morafka, D. J., G. A. Adest, L. M. Reyes, G. Aguirre L. and S. S. Lieberman. 1992. Differentiation of North American deserts. A phylogenetic evaluation of a vicariance model. Pp. 195-226. *In*: *Biogeography of MesoAmerica: Proceedings of a Symposium*, Mérida, Yucatán, México, October 26-30, 1984. Tulane Stud. Zool. Bot. Suppl. Publ. (1).
- Morafka, D. J., and L. M. Reyes. 1994. The biogeography of Chihuahua desert herpetofauna: Old myths and new realities. Pp. 79-88. *In*: P. R. Brown and J. W. Wright, editors, *Herpetology of the North American deserts: Proceedings of a Symposium*. Southwestern Herp. Soc. Spec. Publ. (5).
- Murphy, R. W., and K. D. Doyle. 1998. Phylogenetics: Frequencies and polymorphic characters in genealogical estimation. *Syst. Biol.* 47:737-761.
- Palacios Orona, L., and H. Gadsden Esparza. 1994a. Patrón alimentario anual de un gremio de lacertilios en el Desierto Chihuahuense. III Reunión Nacional de Herpetología: 56.
- Palacios Orona, L., and H. Gadsden Esparza. 1994b. Food partition of the lizard guild at the sand dunes in Chihuahua. Abstr. SSAR/HL meeting, Athens, Georgia: 62.
- Pough, F. H., D. J. Morafka and P. E. Hillman. 1978. The ecology and burrowing behavior of the Chihuahuan fringe-footed lizard, *Uma exsul*. *Copeia* 1978:81-86.
- Schmidt, K. P., and C. M. Bogert. 1947. A new fringe-footed sand lizard from Coahuila, Mexico. *Am. Mus. Novitates* (1339):1-9.
- Smith, H. M., D. A. Langebartel and K. L. Williams. 1964. Herpetological type-specimens in the University of Illinois Museum of Natural History. *Illinois Biol. Monogr.* (32):1-80.
- Smith, H. M., and R. B. Smith. 1976. Synopsis of the herpetofauna of Mexico. Volume III. Source analysis and index for Mexican reptiles. North Bennington, VT: John Johnson.
- Smith, H. M., and R. B. Smith. 1993. Synopsis of the herpetofauna of Mexico. Volume VII. Bibliographic addendum IV and index, bibliographic addenda II-IV 1979-1991. Niwot, CO: Univ. Press of Colorado.
- Tanner, W. W. 1970. A catalogue of the fish, amphibian, and reptile types in the Brigham Young University Museum of Natural History. *Great Basin Nat.* 30:219-226.
- Trepanier, T. L. 1998. Genética de la conservación de las lagartijas de arena de Mojave, Colorado y Valle de Coachella (género *Uma*). Abstracts V Reunión Nacional de Herpetología, Xalapa, Veracruz: 27.
- Underwood, G. L. 1984. Scleral ossicles of lizards: An exercise in character analysis. Pp. 483-502. *In*: M. W. J. Ferguson, editor, *The structure, development and evolution of reptiles*. Symp. Zool. Soc. London (52).
- Williams, K. L., P. S. Chrapliwy and H. M. Smith. 1959. A new fringe-footed lizard (*Uma*) from Mexico. *Trans. Kansas Acad. Sci.* 62:166-172.
- Williams, K. L., H. M. Smith and P. S. Chrapliwy. 1960. Turtles and lizards from northern Mexico. *Trans. Illinois Acad. Sci.* 53:36-45.
- Zalusky, S. B., A. J. Gaudin and J. R. Swanson. 1980. A comparative study of cranial osteology in the North American sand lizards, genus *Uma* (Reptilia: Iguanidae). *Copeia* 1980:739-747.

Book Review: *The Last River Rat: Kenny Salwey's Life in the Wild* by J. Scott Bestul and Kenny Salwey. 2001. Voyageur Press, Stillwater, Minnesota. 255 pp. \$19.95.

**Philip A. Cochran
Biology Department
Saint Mary's University
700 Terrace Heights
Winona, MN 55987-1399**

Kenny Salwey has spent most of his life learning to live off the land in the Whitman Swamp, a backwater of the Mississippi River in Buffalo County, Wisconsin, and in the bluffs that border that bottomland. Early in this book, he describes how he was influenced by a tough but insightful game warden to turn from a path that often skirted outside the boundaries of the law. The warden persuaded Kenny to give a nature talk to a group of teachers, and that led to a vocation of sharing his hard-won experience and his awakening concern for the welfare of the Mississippi River ecosystem through serving as a storyteller, guide, and workshop instructor. Kenny continued, however, to wrest his living from the swamp and hills, and this book follows his varied activities month by month through the course of a year.

Much of what is described in this book (fishing for trout, hunting for morel mushrooms, running setlines for catfish, prospecting for wild ginseng) will be of general interest to outdoor enthusiasts. Even seasoned veterans should be able to pick up a trick or two from a man who has learned to accommodate floods, swarms of biting insects, and frigid winters. But this is a herpetological journal, after all, and for the rest of this review I will emphasize what might specifically interest its readers.

As might be expected in a book that tracks the seasons through a riverine ecosystem, frogs, turtles, and snakes are frequently mentioned. Passing, nonspecific references are made to frogs and turtles hibernating, frogs and toads calling, turtles nesting, and turtles sunning. I appreciated the description of the spring calling of frogs as "the national anthem of the wetlands" (p. 181), and I also appreciated the sentiment behind the statement that one of the many uses of a walking stick is to coax a snake to move from one's path (p. 108). The implication that snakes in their winter dens are warmed by the bodies of other snakes (p. 67) is incorrect. Specific mention is made of spring peepers, treefrogs, snapping turtles, painted turtles, map turtles, softshells, bullsnakes, racers, garter snakes, water snakes, and timber rattlesnakes. I suspect that "bullfrogs" (p. 79) are really green frogs and "box turtles" (p. 245) are Blanding's turtles (Anderson [1998] also referred to box turtles in an area of Wisconsin where Blanding's turtles

were the likely subject).

Two chapters should be of special interest to the herpetologically minded. The chapter for June ("The Snake Hunters") recreates a hunt for timber rattlesnakes in the tradition of the old bounty hunters. Fortunately, the bounty in Wisconsin has been eliminated for some time, and, unlike many accounts in the past, this chapter does not overdramatize the risks taken by bounty hunters or imply that they were acting selflessly to safeguard the greater welfare of society. However, in explaining the apparent decline in rattlesnakes in the bluffs where they were formerly abundant, the authors seem to place more emphasis on habitat loss through succession than on the lingering effects of past hunting. It doesn't matter what shape the habitat is in if a population has been reduced beyond its capacity to sustain itself. Moreover, no mention is made of habitat loss through residential development in the bluffs, or of the increased mortality that results through increased encounters between people and snakes in developed areas.

The chapter for March ("An Affinity for Turtles") describes how Kenny Salwey hunts for overwintering snapping turtles through the ice. Turtle researchers might gain insight here, while anglers and hunters will appreciate Salwey's reverence for the creature that he harvests.

When I first saw this book and read its title, I was reminded of John Madson's (1985) *Up on the River: An Upper Mississippi Chronicle*, which I have reviewed elsewhere (Cochran, 1986). Both books celebrate the life of the river rat, but Madson's ranges extensively along the length of the Upper Mississippi River, and most of its action takes place on or along the main channel of the river itself. *The Last River Rat* provides a more sustained focus on a single region, and its emphasis is on backwaters and bluffs. Throughout the book the main channel of the river remains a more or less distant backdrop.

For someone with an interest in native amphibians and reptiles, reading *The Last River Rat* is like conducting a typical herpetological survey. There may be long stretches without encountering the objects of one's search, but there is much else to enjoy along the way.

Literature Cited

- Anderson, T. 1998. Natural sculpture: Northeastern Wisconsin enjoys a special resource—nearly 400 miles of carved coastline. Green Bay Press-Gazette, September 27, pp. D1-D2.
- Cochran, P. A. 1986. Up on the river, by John Madson (book review). Wisconsin Academy Review, pp. 61-62.
- Madson, J. 1985. Up on the river: an Upper Mississippi chronicle. New York: Nick Lyons Books.

HerPET-POURRI

by Ellin Beltz

Two herpetologists' views of life at Christmas

I asked some friends for their thoughts on the holiday season. Here are two replies.

- "It's great here, peak amphibian season now that the winter rains have arrived. We have *Batrachoseps attenuatus* and *Pseudacris regilla* in the backyard and a deafening chorus of the latter in the nearby pasture most recent nights. We also got a *Thamnophis sirtalis* in the yard on Christmas day. The city park half a mile away (mature Sitka spruce and grand fir) has *Ambystoma gracile*, *Aneides vagrans*, *Ensatina eschscholtzii*, *Elgaria coeluria* and *Thamnophis elegans*. The newts should be out in force now but I haven't been to any ponds this week to look. Apparently it's not hot enough for fence lizards here, but they abound a few miles inland. The locals say *Crotalus* turns up sometimes in the hills, but I've never seen one yet despite a lot of field time not far from here over the years." Ken Mierzwa <kmier@northcoast.com>.
- "Let's see now: Christmas Eve at the Banja Luka Metal Factory compound, downtown Republik of Serbska, Bosnia. It's 24 December 5:30 P.M., so lets dress for the festive occasion shall we? Underwear, long and short; two pairs of socks; combat pants; wind pants; winter Gortex boots; combat shirt; Gortex Jacket; body armour; combat vest; beret and toque; gloves; pistol and extra ammo; radio, bayonet; two pressure bandages; flashlight; lightstick, two parachute flares, two knives (that explains the 'two bandages mentioned previously); grenade (Nope, don't need that. I'm too bundled up to throw anything) and a big stick to ward off the dog packs. If Santa wants into the camp tonight, he'd better have his pass and papers in order! The staff officers, mainly Canadian but with a volunteer group of Brits, Dutch, American and New Zealanders, replaced the Canadian troops on sentry duty last night from 5:30 P.M. to 0600 this A.M. to allow them to have a good Xmas evening and a late lie-in (at the time we thought that this was a very good idea), and just in time for it to reach -17°C (2°F) last night! In Bavaria to our north, it was the coldest night recorded on Christmas Eve since 1870! My position, along with a New Zealander and a Brit was guarding the VIP approach on the main road. Basically, the 'road sentry' (also known as 'the lamb') stands for half an hour in the middle of the road under a huge searchlight to ensure that approaching motorists know that there is a checkpoint camouflaged somewhere about. The other two, shivering in a sand-bagged snow castle nearby, try to pretend that they're giving you protective cover! After two hours, somebody replaces you for a half hour rest in the warm with tea. And then, back to work, continue as needed. Xmas Eve dinner is the traditional UK Army bag lunch out here, mystery meat sandwich, soft drink, a by-now frozen orange, Mars Bar, cookies, and look, a piece of frozen fruitcake! But, the 12 hours or so passed without significant incident and we watched the sun come up on a crystal clear sky, and then, just in time for breakfast—big, fat snowflakes! The cooks had a hot breakfast on for us and then we participated in the British Army tradition of 'Gun-fire,' walking around the soldier's billets waking them with a

cheery 'Merry Christmas' and a mug with tea/coffee spiced with rum/whiskey or whatever it is that is the preference of the morning. (It comes from the tradition of serving the troops rum before a battle—and during the Crimean war, they ran out of rum and the officers used their own stocks of other spirits to fortify the troops for a Christmas Day attack. So much for 'Peace on Earth' eh?) After being up for 28 hours, this could make for a very long Christmas day! Still, since it was 4°C (39°F) in my trailer at 8 A.M., I feel no rush to go to bed right now. The night, though cold (very-so) passed quietly, and since most of us spent significant time quiet in individual guard positions, it left us a lot of time for thinking about those of you at home and those of you that I have never met except by E-mail and telephone; and made us appreciate two things all the more. The blessing that we have living in modern societies with all the benefits of peace, prosperity and the love of family; and the efforts of our young troopers that come over here, from a multitude of places in Canada and elsewhere, far from their own families to do this job day-in, day-out for six months. I just wanted to take an opportunity from the land of Bos to wish everybody a happy festive season and my very best wishes for the New Year! Cheers all, and hugs and kisses for all (as appropriate to gender and taste). Wes" <herpnews@user.kingsnake.com> For those new to this column, Wes von Papineau is a major contributor to my efforts and is serving as a member of Canadian peacekeeping forces in Bosnia.

Mitey bad day there

Associated Press reports: "West Haven, Connecticut -- A man was bitten by his pet cobra while picking mites off the poisonous snake. The 25-year-old man drove himself to a nearby hospital after being bitten on the thumb Monday. He was later transported to Jacobi Medical Center in New York, a regional center for the treatment of snakebites. The hospital works with the Bronx Zoo, which stocks a variety of snake antivenoms. The man's vital signs were beginning to slide when he reached New York and he could have died had he not received antivenom. Connecticut law forbids individuals from owning venomous snakes. The Asian cobra was confiscated and the man could face state and federal charges." [*Albuquerque Journal*, December 19, 2001, from J. N. Stuart]

10,000 turtles found in largest Hong Kong seizure

About 10,000 live turtles kept in four 20-foot containers on board an incoming river trade vessel from Macau were seized at a cargo working area in Hong Kong. It is estimated that the seizure is worth over \$3.2 million and it is the largest ever seizure of live turtles in Hong Kong. On the same day, the confiscated turtles were transferred to Kadoorie Farm and Botanic Garden for identification and temporary holding. ["From the Asian Turtle Crisis list December 13, 2001. It's sobering to think how many of these shipments must go through without being discovered or stopped. . . . These turtles were probably bound for food markets, or possibly traditional pharmacies. James Harding"]

Where the baby turtles go

In numbers that totally blow my mind, from 1986 to 2000, the U.S. baby turtle industry, which takes eggs from the wild, hatches them and sells them overseas for pets, has never exported less than 3.7 million turtles. The source is the Houma, Louisiana, *Courier*, October 21, 2001, from Ernie Liner.

Year	# of farmers	Millions of turtles exported
1986	25	3.7
1987	24	4.7
1988	28	4.1
1989	28	4.4
1990	30	4.8
1991	34	3.6
1992	37	5.0
1993	40	5.2
1994	42	6.9
1995	45	5.8
1996	48	8.4
1997	54	7.5
1998	57	8.6
1999	56	10.7
2000	58	11.6

Realize, of course, that if these turtles had been placed back in the wild from which their eggs came, that many more American children could see turtles as wild animals in the wild. Also recall that American red-eared sliders which constitute most if not all of these eggs are becoming a world-wide menace to the habitat of other places as they dine and slime their way into European and Asian rivers and ponds.

Gopher broke?

The last known population of some 100 Mississippi gopher frogs has been given Endangered Species Act protection in a last ditch effort to save the species from extinction says the U.S. Fish and Wildlife Service on December 4. Once found in lower coastal plain longleaf pine forests from Louisiana to Alabama, the only breeding pond in Mississippi's DeSoto National Forest is in "close proximity to a proposed 4,600 acre residential development." Because of its very small numbers the "species is extremely vulnerable to natural processes such as droughts and floods and to the loss, damage and fragmentation of its habitat." [*GreenLines* #1520, December 5, 2001, from Karen Furnweger]

A dog day afternoon

An 18-foot, 200-pound Burmese python ate his owner's "other pet, a 30-pound pit bull" in Merced, California. The owner had summoned authorities because he feared the pit bull was dognapped, but the bulge in the snake's midsection and its new 230-pound weight showed otherwise. The snake is usually confined to "a backyard pen. . . . Animal control officers are investigating whether owning the giant python violates city codes." [*ABC News* online, October 19, 2001, from new contributor Donna Moe]

Community fair spawns urban legend

A giant snake is supposed to have escaped from a car with Iowa plates in a Washington state park. The car belonged to a carnival employee working at the community fair. The man "walked over to the Herpetological Society's booth, and told us he had brought a nine-foot boa constrictor with him, that it had been asleep in the car, but was not in any type of a container. . . . [He had] left a car window partly open and when he returned to the car, the snake was gone." Marty Marcus and the man looked for days. It was never found. Now the story is spreading; the snake is reported to be a 19-foot python. If the animal ever existed and escaped at the park, local herpetologists point out that it would get too cold to overwinter if it wasn't taken by a bear, cougar or stray dog as it got sluggish. The story, however, will probably live forever. [*Key Peninsula News*, October 2001]

Cool website

Check out <<http://critterguy.museum.msu.edu/>> Jim Harding asks for and would appreciate feedback on the site, which is still in development.

Caution—Very unpleasant reading follows

Associated Press reports: "Albany, New York, police are questioning an eight-year-old boy in the beating death of a pet turtle. Lisa Johnson had the pet turtle—Myrtle—for 32 years. She said someone took the turtle out of the swimming pool in her back yard on Sunday and beat it to death with a brick. Johnson said she received the turtle when she was seven. 'Myrtle was my first pet, I got her when I was in the second grade, she has always been there. She's a member of my family,' Johnson said. Albany police are investigating and said the eight-year-old could be charged with a felony if he was responsible. The law to toughen penalties for animal cruelty was passed last year, making it a felony to kill someone's animal." [*Athens Banner Herald*, December 23, 2001 from Wes von Papineau]

Save my snake!

"A snake owner refused to abandon his blazing home—because he didn't want to leave his pet python! [The 42-year-old man] told fire crews he couldn't leave the 9-foot-long Burmese python as she had just eaten a chicken and was in a bad mood. [The man] was treated for smoke inhalation after the blaze was put out." [*Sunday People*, London, UK, December 22, 2001, from Desiree Wong <<http://www.baskingspot.com>>]

Honey, I found another shrunken herp!

In a case of science imitating science, the same researcher who found the world's tiniest frog has now announced finding the world's tiniest lizard on a remote Caribbean Island. The biologists found the small, brown lizard on the first day of a trip to the remote island to look for new species. S. Blair Hedges of Pennsylvania State University said that after finding both these tiny island herps, "People probably think I have a little box in the lab that shrinks animals." [2001: December 3, *USA Today*, from Alan Rigerman and Bill Burnett; December 3, *Science News* from J. N. Stuart]

SUPER-CROC!

"He roamed the Earth 110 million years ago, grew to the length of a city bus and ate dinosaurs for breakfast," reports the Natural History Museum of Los Angeles County advertising the only west coast show of "Super Croc," really named *Sarcosuchus imperator* by Paul Sereno. Found in Niger, Africa, when alive *Sarcosuchus* weighed in at 17,500 pounds and ate 20- to 30-foot-long food items with impunity. Modern crocodiles are said to be able to eat up to 20 percent of their body weight at one time. This permits them to not eat anything for a long time. We saw the scale model at the sculptor's studio in Colorado this summer. Imagine a yellow school bus laying on its side and you would have the box to contain supercroc. [2001: October 25, Houma, LA *Courier*, from Ernie Liner; October 26 *USA Today* and *Arkansas Democrat-Gazette*, from Bill Burnett and *Chicago Tribune* from Mrs. P. L. Beltz; October 28 *Albuquerque Journal*, from J. N. Stuart] The *Tribune* suggested that "It's lucky for Steve Irwin, television's intrepid crocodile hunter, that the 'Super Croc' fossil . . . has been extinct for millions of years."

Bad year for strandings

The *Boston Herald* reports: "Another four rare turtles washed up on Cape Cod beaches yesterday, raising this year's strandings of Kemp's ridley turtles to 86. . . . A New England Aquarium spokeswoman . . . said that of 39 rescued ridley turtles being treated there, 16 were boxed up yesterday and sent by Delta Airlines priority parcel service to Florida's Mote Marine Lab in Sarasota, the Clearwater Aquarium, and Tampa's Florida Aquarium. Experts will then release them into their normal winter range in the Gulf of Mexico." [December 21, 2001, from Wes von Papineau]

Thanks to every contributor this month and to Ms. G. E. Chow, Alan Rigerman, Bill Burnett, Ernie Liner and others who've sent things I'm going to use next month. You can contribute too! Send whole pages of newspaper (saves all that cutting and taping of the name/date slug back on) and put your name on each piece (either by scrawling or use those give-away address labels every charity showers us with at holiday time) and mail to Ellin Beltz, P.O. Box 934, Ferndale, CA 95536. E-mail to <ebeltz@ebeltz.net>.

Unofficial Minutes of the CHS Board Meeting, December 14, 2001

President Jack Schoenfelder called the meeting to order at 7:30 P.M. Board members Greg Brim, Rich Crowley and Char Haguewood were absent.

Officers' Reports

Recording Secretary: Emily Forcade distributed and read the minutes for the November board meeting. Corrections were made and the minutes were accepted.

Treasurer: Greg Brim was absent. Jack Schoenfelder distributed the treasurer's report, the interim symposium report and the 2002 proposed CHS budget. Jack said that one change in the proposed budget would be the expense for meeting space. The Peggy Notebaert Nature Museum will no longer be charging us for meeting space. The treasurer's report was accepted.

Membership Secretary: Mike Dloogatch said that membership continues at about 800.

Vice-President: Lori King said that Rob Carmichael from the Lake Forest Wildlife Discovery Center would be the speaker at our general meeting in December. At the January 2002 meeting, Dr. Natalie Mylniczenko, a staff veterinarian at the Lincoln Park Zoo, will speak about "Caecilians — Medical Management and Husbandry."

Corresponding Secretary: Steve Spitzer said he is transferring his materials to his successor, Steve Sullivan.

Publications Secretary: Mike Redmer said that \$500 has been added to the proposed budget for maintenance of the website.

Standing Committees

ReptileFest: Darin Croft reported that he met with Bill Bavirsha to discuss the UIC facility. The first committee meeting

will be January 13 at Mike Dloogatch's office. Darin expects one meeting in January, one in February and several in March. The facility will cost less than in 2001. Concession stands may be operated by UIC with proceeds going to their scholarship fund. Delta Phi Omega, a coed service organization, may be able to provide us with extra help during the 'Fest. Jack is in discussion with several potential corporate sponsors. The cost of admission was discussed. Disney Radio will be giving away concert tickets as prizes during the Fest. Jenny Vollman said that she passed out many flyers over the Thanksgiving weekend at the Nature Museum where the CHS members were exhibitors.

Grants: Mike Redmer said that we are receiving a large number of applications.

Shows: Jenny Vollman thanked the members who exhibited herps over the Thanksgiving weekend. The museum had its largest attendance in 150 years. We greatly helped in crowd control for the people waiting to view their Grossology exhibit. We have had a request for a show in Mount Prospect. Ron Humbert said that he passed out many flyers for the 'Fest at the Chicago Cultural Center Nature Film Fest. They would like us to attend again next year.

Raffle: Dotty and Ron Humbert will run the raffle at the December meeting. Linda Malawy wondered if we were low on items to raffle. Gary Kostka has a list of companies to contact. Steve Sullivan will write to them. Lori King said she could bring in some art objects. Ron volunteered to provide storage space for any items. Jack said that it was important for each donating company's name to be listed in the *Bulletin* since this documents the donation for tax purposes. Linda Malawy volunteered to work with Ron for the January raffle.

Adoptions: Linda Malawy said that someone is looking for a home for a gigantic carp. Jack said he would be interested in adopting it. There was no further discussion.

Chicago Wilderness: Mike Redmer said that some new text regarding the CHS will be placed on the CW website.

Ad Hoc Committees

Facility: Jack said that he and several board members met with representatives from the Chicago Academy of Sciences. He believes this will lead to a new and improved relationship between their organization and ours. They are no longer going to charge us for our meeting space. We will continue to provide them with the exhibition of live animals at their request during special events. During the upcoming holiday break, from December 22 to January 6, they would appreciate exhibitors, especially during the peak hours of 11 A.M. to 3 P.M. on the weekends. This will help them by providing an interesting focus for the people who are waiting for entry into the very popular Grossology exhibit. Jenny Vollman will coordinate this. A second aspect of our presence there will be to work with their staff to create a standing exhibit which can be used during the three periods, in January, May and September, when they are changing from one major exhibit to another. We will have the resources of their staff for design and construction. They will be looking to us for content and design requirements should we decide to include live animals. They will generate funding for the exhibit. Jack asked Ron Humbert to coordinate our input. Ron asked for volunteers to serve on a committee with this goal in mind. Anyone who puts in time should keep a log of the hours spent since a number of agencies will provide matching funds for hours of time expended. Mike Redmer said that Chicago Wilderness, for example, is set up to partner a project and can provide funding for an exhibit of up to 2000 sq. ft.

The CAS offices at 2060 N. Clark are going to be closed. The office staff will be moved to the museum. Until new space can be added for the staff, the main auditorium will be converted to office space. The McCormick Room is being refitted for use as an auditorium (shades, etc). This is scheduled to be happening in March, so we must plan to meet that month in the Science Lab at the Nature Museum.

Nominating Committee: Jack complimented the committee for their fine work.

Salamander Safari: Tom Anton will be working with Ron Humbert to coordinate this activity in Will County this year.

Old Business

Animal of the Month: The group was strongly in favor of continuing this activity. The number of exhibitors was less important to them than that there were live animals for members to see and learn about. The January animals will be skinks; February, toads; and March, salamanders.

Frog Call CDs: Mike Redmer said the CD narration has been revised. We have CDs available for the next three raffles.

Speakers' Bureau: Jack said that the CAS has requested a list

of speakers. Mike Redmer has some ideas about five or six talks that are marketable.

Board Meeting Dates: Steve Spitzer distributed a finalized list of the dates for the board meetings from January 2002 to March 2003. These will be posted on the CHS website.

New Business

Ephemeral Wetlands Conference: Mike Redmer said that on February 20–21 a group of conservation organizations are sponsoring this conference. The speakers are primarily herpetologists. Registration is free and attendance is expected to be large. Currently it stands at 500–600 people. They would like the CHS to be involved. Mike may have a proposal for the board regarding this at the next board meeting.

2002 CHS Budget: After some discussion, Mike Dloogatch made a motion to accept the budget as proposed by Greg Brim. Linda Malawy seconded it. The motion carried unanimously.

Age Requirement for Board Members: Jack opened a discussion about instituting an age requirement for board members. This came out of discussions that took place in the Nominating Committee. There were strong opinions on both sides. In the end, it was decided not to pursue changing the by-laws, which currently do not provide any age restriction.

Ideas and Suggestions

Jack reminded the group that people have been invited to bring into the general meeting any gadgets or devices they have found helpful for keeping their animals.

Round Table

Marco Mendez from Project Exploration wants frozen herps from which he hopes to obtain skeletons to study.

Linda Malawy said that IIT has 13 live *Rana temporaria*, which have been used in studies of muscle physiology. They have not been exposed to any drugs. She asked if anyone was interested. Various people volunteered to take one or more. She will bring them to the general meeting.

The meeting was adjourned at 9:50 P.M.

Respectfully submitted by Recording Secretary Emily Forcade



THE GOURMET RODENT™

VISA MasterCard American Express

RATS AND MICE

Bill & Marcia Brant
6115 SW 137th Avenue
Archer, FL 32618
(352) 495-9024
FAX (352) 495-9781
e-mail: GrmtRodent@aol.com

© All Rights Reserved

Herpetology 2002

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 editor assumes full responsibility for any errors or misleading statements.

REPRODUCTIVE CYCLES IN CAPTIVE BLOOD PYTHONS

D. F. DeNardo and K. Autumn [2001, Copeia (4):1138-1141] note that proper timing of the reproductive cycle to assure mate access is critical to optimizing success. They tested the importance of male presence on the progression of the female reproductive cycle in the blood python, *Python curtus*. Upon reaching sexual maturity, captive-born, individually raised virgin female snakes were housed with either a conspecific male or female. The reproductive condition of the females was monitored using ultrasonography. At the onset of the reproductive season (late autumn), all females initiated early follicular growth; however, only females housed with males initiated vitellogenesis, and these females ovulated and oviposited viable eggs. Females not housed with males showed arrested follicular development in that they maintained hydrated, nonvitellogenic follicles that underwent follicular regression after three months. The requirement for male presence prior to vitellogenesis is premature for fertilization but assures the female of a mate prior to mobilizing substantial energy stores into reproduction. Once an energy investment is made, females commit to completing the cycle.

LIZARDS DETECT PREDATOR CHEMICAL CUES

R. Van Damme and K. Quick [2001, J. Herpetology 35(1): 27-36] report that three species of lacertid lizards (*Lacerta bedriagae*, *Podarcis tiliguerta* and *Podarcis sicula*) are able to detect the former presence of the saurophagous snake *Coluber viridiflavus* by tongue flicking. Lizards tongue flicked more in cages previously inhabited by the predatory snake than in clean cages or in cages treated with eau-de-cologne. They also exhibited behavioral acts typically associated with stressful situations (foot shakes, tail vibrations, starts) more frequently when predator chemicals are present. Individuals from the two *Podarcis* species that came from populations syntopic with *C. viridiflavus* were also able to distinguish between chemical cues from this saurophagous predator and a nonsaurophagous snake (*Natrix maura*). In these lizards, the former presence of *N. maura* did not elicit higher tongue-flick rates or stress-indicating behaviors. In contrast, individuals of *Lacerta bedriagae* collected from a snake-free area increased tongue-flick rate and frequency of stress-related behavior in response to chemicals of both snakes, suggesting that prior contact is not required for chemosensory recognition of snakes in this species but may facilitate the distinction between different species of snakes. The presence of predator (*C. viridiflavus*) chemical cues induces a shift in the microhabitat use of the lizard species studied. In a large terrarium containing various substrates, lizards chose different types of microhabitats when chemical cues of *C. viridiflavus* were present than when absent and avoided the side of the terrarium labeled with the chemicals.

SYMPATRIC MILKSNAKE POPULATIONS

M. P. Armstrong et al. [2001, J. Herpetology 35(4):688-693] note that the sympatric occurrence of *Lampropeltis triangulum elapsoides* over much of its peripheral range with *L. t. triangulum*, and the presence of zones of intergradation in other areas, along with presumed intergradation with *L. t. sypсила* and *L. t. amaura* in the central and western portions of its range pose questions regarding the taxonomic status of *L. t. elapsoides*. Such questions can best be resolved when confusion is eliminated about areas of population overlap. The authors present an in-depth analysis of a previously reported intergrade zone in western Kentucky and adjacent Tennessee between *L. t. sypсила* and *L. t. elapsoides*. Data was taken from reference samples of *L. t. sypсила* (N = 16) from Missouri and Kansas, and *L. t. elapsoides* (N = 23) from South Carolina, Georgia, Florida and Mississippi. Canonical discriminant function analysis was then used to compare western Kentucky/Tennessee *L. triangulum* specimens (N = 63) with the two reference samples. The authors conclude that in western Kentucky *L. t. elapsoides* and *L. t. sypсила* exist in sympatry, with minimal, if any, gene flow between these populations.

SALAMANDER AGE, GROWTH AND SITE FIDELITY

G. A. Marvin [2001, Copeia (1):108-117], based on mark-recapture data collected over seven years on the Cumberland Plateau salamander, *Plethodon kentucki*, examined: (1) longevity and long-term site fidelity, (2) growth curves for each sex derived from both cross-sectional and longitudinal data on body size, (3) whether growth curves generated from the two kinds of data were comparable, and (4) how the relationship between adult body size and age in this species compares to that in other plethodontid salamanders. Recapture rates indicate that about 86% of males and 82% of females survived and remained in the study area from one year to the next. Most individuals recaptured at the end of the study period were within, or less than 2 m from, the home range they occupied at the beginning. Maximum age estimates were 13 yr for males and 16 yr for females. Growth curves derived from cross-sectional and longitudinal data were very similar. For both sexes, there is rapid growth up to the time of first reproduction (about 4 and 5 yr for males and females, respectively) and continued growth for 2 to 4 yr afterward but relatively little growth after 9 yr of age. Males may have a greater rate of growth prior to sexual maturity, but females grow for a longer period and attain a greater body size. There is much variance in adult body size within a given age class for both sexes. The correlation between body size and age was slightly greater in males than in females, and the correlation was significant for the combined data. Similarly, the size-age correlation in other plethodontid species is stronger for males than for females, which may be because of a greater variability in growth after sexual maturity in females than in males.

GARTERSNAKE FORAGING BEHAVIOR

M. A. Krause and G. M. Burghardt [2001, *Herpetological Monographs* 15:100-123] note that the widely distributed common gartersnake (*Thamnophis sirtalis*) thrives in a variety of environments and preys upon a diversity of species. Phenotypic plasticity (including learning), as well as genetic diversity, may underlie the success of this species. The authors examined how different types of feeding experience influence the ontogeny of foraging behavior in garter snakes from two populations with different adult diets (earthworm or amphibian/worm/mammal diets) living on Beaver Island in Lake Michigan. Times to approach, capture, handle, and swallow prey were recorded in controlled laboratory settings. In Experiment I, neonatal snakes reared on fish, earthworms, or a mixed diet were tested for feeding skills at their first feeding, and at 5 subsequent intervals after feeding experience and diet-switching over a period of nearly 8 months. Snakes in all three groups decreased their latencies to consume prey after feeding experience and there were some litter, but no site or sex, differences. Snakes fed initially on worms were slow at consuming fish upon diet switching, whereas snakes that initially fed on fish rapidly consumed worms upon their first feeding. Feeding skills for initial prey were retained following the diet-switching phase. Experiment II determined the effects of long-term feeding experience on the abilities of field-caught adult snakes to detect, capture, and consume frogs, fish, and worms. Most foraging measures differed for all three prey, but there were few site differences and no sex differences. The effects of prior feeding experience appear to be less evident for adults than for neonates, which may be due to the effects of changing predator-prey body size relationships, changes in prey availability, or to constraints of the captive testing environment. Although populations on the island eat different prey, there is little evidence for genetic differentiation in foraging behavior during the several thousand years that the island has existed.

CHINESE ALLIGATOR REPRODUCTION

J. Thorbjarnarson et al. [2001, *J. Herpetology* 35(4):553-558] note that the Chinese alligator is one of the world's most critically endangered reptiles. Although there is a relatively large captive population, in the wild small groups of alligators are limited to a few small ponds in an agricultural landscape in southeastern Anhui Province. As part of an effort to develop plans for the conservation of Chinese alligators in the wild, the authors investigated aspects of the reproductive ecology of wild alligators during a survey of the last remaining groups. They also compiled published and unpublished information on the reproduction of alligators in captivity and in the wild. Nesting was only reported from four sites in 1999, and they describe two of these areas. Because of the intense human use of the landscape, alligators seek small patches of relatively undisturbed vegetation for nesting, and these fall into two main categories: vegetated hillsides, usually covered with pine trees, and small islands in agricultural ponds. Observations of one nest on a pine hillside suggest that pine needles may make a poor nest substrate leading to lethally low temperatures for developing embryos. Site selection for the reintroduction of alligators should take potential nesting habitat into consideration.

VALIDITY OF *SANZINIA* AND *ACRANTOPHIS*

M. Vences et al. [2001, *Copeia* (4):1151-1154] analyzed a total of 1981 bp of the mitochondrial 16S rRNA, 12S rRNA and cytochrome *b* genes in five boine and one pythonine snake species to determine phylogenetic relationships between Malagasy and Neotropical taxa included in the genus *Boa*. The obtained cladograms significantly grouped *Boa constrictor* with the Neotropical genera *Eumectes* and *Epicrates*, whereas the Malagasy species were the sister group of the clade of the three Neotropical taxa. Based on these results, *Sanzinia* and *Acrantophis* should be considered as valid generic names for the Malagasy boas. Their origin may be a result of a Cenozoic dispersal from Africa or Asia.

NIGHT LIZARD PHYLOGENY

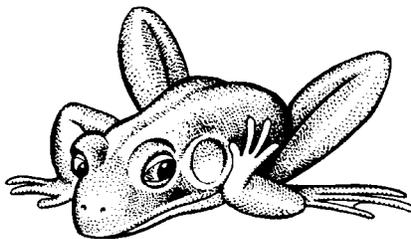
R. Lovich [2001, *Herpetologica* 57(4):470-487] analyzed intra-specific relationships, biogeography, and taxonomy of *Xantusia henshawi* occurring in southern California by constructing a gene tree phylogeny using mitochondrial DNA (mtDNA) sequence data from the cytochrome *b* region. Three well-supported haploclades show high degrees of sequence divergence in contrast to a generally conservative morphology. Fault zones and their associated habitat features in the form of fault valleys, canyons, and arroyos geographically separate the different gene tree haploclades. This suggests that the evolution of *X. henshawi* is tied to the occurrence of stable exfoliating granitic features that are lacking in riparian and flood plain corridors. Sequence data indicate that *X. h. gracilis* evolved from within one of the three haploclades of *X. henshawi* and represents an exclusive lineage. *Xantusia henshawi* remains non-exclusive. Under the evolutionary species concept, results of this study in combination with those of previous studies warrant the elevation of *X. h. gracilis* to full species. This study has assisted in hypothesizing previously unknown barriers to gene flow that have contributed to the evolution of *X. henshawi* and *X. gracilis*.

BOG TURTLE HABITAT

J. L. Morrow et al. [2001, *J. Herpetology* 35(4):545-552] studied habitat selection of 50 bog turtles (*Clemmys muhlenbergii*) at two sites in Harford County, Maryland, from April 1996 to August 1997. These sites differ in size, amount of grazing, and stage of vegetative succession. One of the sites was studied intensively 20 years ago. Turtle movements were monitored using radiotelemetry: Individuals were located twice a week during the active season and once a month during hibernation to assess habitat selection and seasonal changes in habitat use. Vegetative, soil, and water characteristics were recorded in 0.25-m² quadrats placed at turtle locations and stratified random locations throughout the study areas. Turtles selected sedges and rushes and other low-lying herbaceous plants. They avoided some woody plants (alders, grapes, and berries) and an exotic plant (Japanese honeysuckle, *Lonicera japonica*) that may gradually eliminate typical wetland vegetation and produce a closed canopy. Management practices, such as moderate animal grazing and winter burns, will help retard plant succession and provide more open habitat.

The Tympanum

By now, most readers of this publication have probably heard about the seizure in Hong Kong on December 11, 2001, of over 7,000 turtles destined for mainland Chinese food markets. The plea below was issued via E-mail by Alan Salzberg of the New York Turtle and Tortoise Society. Many of these turtles have already been transported to the U.S., courtesy of United Airlines. As of this writing, three shipments totaling 1,144 turtles had arrived in Miami and another shipment of 2,700 turtles was expected. Facilities for this rescue and rehab operation are being provided by Al Weinberg, a commercial reptile breeder near Port St. Lucie, Florida.



short notice to prevent euthanasia of an enormous number of confiscated animals of 12 species, all of whom are threatened, endangered, or critically endangered in all or parts of their native ranges.

Received animals will receive highly skilled veterinary care and be placed

through the TSA partnership. All donors will be acknowledged both for their generous contribution and for tax purposes, as the organizations receiving donations are federal 501(c)3 institutions.

The Turtle Hospital is coordinating the fund-raising effort for veterinary/medical/husbandry supplies and the drive to raise funds to bring the remaining . . . animals . . . into the United States . . . ASAP (as mortality will increase exponentially with delays in transport).

Donations may be made as checks to the following addresses:

The Turtle Hospital of New England TSA Fund
Attn: Barbara Bonner, DVM
1 Grafton Road
Upton, MA 01568

For those wishing to use Pay Pal, the account name is "Turtle Hospital of New England." Funds donated to the Turtle Hospital must be specified as designated for one of the following categories:

1. TSA Funds for use to purchase flights allowing turtles to arrive into U.S. ASAP, or
2. TSA Veterinary/husbandry expenses such as drug/medical supply purchases, or
3. Turtle Hospital use based on urgency of need;

Donations for general TSA donations for other components:

Rick Hudson, TSA co-chair
Fort Worth Zoo
1989 Colonial Pkwy
Fort Worth, TX 76110

Thank you SO much; it is at times like this that one realizes the commitment and dedication of the chelonian community. We are hoping that the response will be both prompt and generous, allowing all animals a chance for prompt veterinary care and placement through the TSA alliance.

Over 7,000 Rare Turtles from China Need Emergency Help

Please consider giving money to support the effort to provide transport to this country, veterinary care and placement in founder breeding colonies for the approximately 7,000 survivors [from the] Asian turtles (approximately 20,000 lbs) confiscated by Hong Kong authorities last week. The turtles were slated for destruction until responsibility for their welfare was taken over by the Turtle Survival Alliance [TSA].

The Turtle Survival Alliance is a global network of turtle conservationists, biologists and concerned individuals committed to ensuring that the one third of the world's turtles threatened with extinction do not go extinct. The recovery effort is the largest ever attempted and the logistics and required funds are formidable. Rick Hudson and Kurt Buhlman, the co-chairs of the TSA, have been working around the clock in many capacities attempting to negotiate the many obstacles to recovery of the turtles.

Many groups have joined the TSA in the recovery effort of this 7,000 turtles, including the Conservation International, Disney, the Fort Worth Zoo, the Humane Society of the United States, the International Fund for Animal Welfare, the International Humane Society World Society for the Protection of Animals, the Memphis Zoo, Dave Lee of Tortoise Rescue, The Turtle Hospital of New England, the Wildlife Conservation Society, United Airlines, and many others individuals and groups. I apologize if everyone is not included in this list, ultimately every contributing individual and organization will receive full recognition. Veterinarians from all over the country are offering assistance, either in situ or by donations of advice and/or supplies.

Kadoorie Botanical Gardens in Hong Kong are currently bearing the greatest burden, as they have generously offered to take responsibility for housing the confiscated animals. They have shown overwhelming dedication and commitment in the face of an unforeseen and overwhelmingly large confiscation. . . .

We are asking the wider chelonian community to contribute to this cause by donating between \$5 and \$10 or whatever you can afford. . . . Every contributor will be part of an effort to mobilize funds, labor, space and other resources at extremely

Advertisements

For sale: rats and mice—pinkies, fuzzies and adults. Quantity discounts. Please send a SASE for pricelist or call Bill Brant, *THE GOURMET RODENT*, 6115 SW 137th Avenue, Archer FL 32618, (352) 495-9024, E-mail: GrmtRodent@aol.com.

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: from **The Mouse Factory**, producing superior quality, frozen feeder mice and rats. We feed our colony a nutritionally balanced diet of rodent chow, formulated especially for us, and four types of natural whole grains and seeds. Mice starting from: pinkies, \$.17 each; fuzzies, \$.24 each; hoppers, \$.30 each; weanling, \$.42; adult, \$.48. Rats: starting with pinkies at \$.45 each, to XL at \$1.80 each. Discount prices available. We accept Visa, MC, Discover or money orders. P.O. Box 85, Alpine TX 79831. Call us **toll-free** at (800) 720-0076 or visit our website: <http://www.themousefactory.com>.

For sale: from Bayou Rodents, excellent quality feeder mice and rats. Every size available. Pinkies starting at \$20/100. Orders are shipped by overnight service Monday thru Thursday. We accept Visa, MasterCard and Discover. For more info, contact Rhonda or Peggy, (800) 722-6102.

For sale: **high quality frozen feeders**. Over a decade of production and supply. Seven sizes of mice available: small newborn pinkies up to jumbo adults. Prices start at \$25 per 100. Feeders are separate in the resealable bag, not frozen together. Low shipping rates. Free price list. Kelly Haller, 4236 SE 25th Street, Topeka KS 66605, (913) 234-3358 evenings and weekends.

For sale: books. *The Snakes of Ecuador: A Checklist and Key* by James A. Peters, 1960, pp. 491-541, softbound, \$20; *Amphibians and Reptiles of Georgia* by Bernard Martof, 1956, 94 pp., 58 figs (b & w drawings), keys, softbound, \$30; *Amphibians and Reptiles of Western North America* by Robert Stebbins, 1954, 536 pp., 104 plates, 52 figs., no DJ, hardbound, \$50; *Reptiles of Oklahoma* by Robert G. Webb, 1970 (first ed.), 370 pp., 14 figs., range maps, DJ, hardbound, \$45; *Reptiles of North Carolina* by C. S. Brimley, 1944 reprint, 35 pp., flexible cardboard covers, \$20; *Guide to the Snakes and Lizards of Wisconsin* by Wesley Dickenson, 1949, 70 pp., 6 figs., 11 color plates, softbound, \$22; *Birds of Colorado* by Bailey and Niedrach, 1965, 2 vols. (895 pp. total), color plates and b & w photos, DJ, hardbound, as new condition in original box from publisher, \$160. All books in excellent condition. Prices for orders \$25 and over include postage. \$2.50 postage and handling for orders under \$25. William R. Turner, 6838 S. Ivy Street, Apt. 302, Englewood, CO 80112, (720) 493-9378, E-mail: turnerbmrk@prodigy.net.

For sale: Large reptile cage (6' long × 2' deep × 2' high). Ideal for medium to large sized lizards. Cage is made of wood with Plexiglas front and top. Nicely stained and varnished—an attractive piece of furniture! Includes stand (2' high) with shelf and smaller reptile cage built into the stand. Also includes 48" light fixture, heat lamp fixture, and various pieces of driftwood, \$90, negotiable. Buyer must make arrangements to pick up the cage (Villa Park, Illinois). Dan Warner, (813) 998-9291 or E-mail: dwarner@vt.edu.

For sale: Green anacondas, c.b. 9/01, beautiful, healthy and DOCILE, \$175 each; yellow anacondas, c.b. 6/01, flawless little screamers, \$95 each; Amazon tree boas, c.b. 7/01, solid yellow, \$125, orange and green, \$150, both are female; 11' female tiger retic, stunning specimen, tame and a great feeder, \$550 or best offer; jungle carpet pythons from nice black and yellow parents, \$100 each or \$175/pair. Mark Petros, Strictly Serpents, (847) 836-9426, E-mail: MLPserpent@hotmail.com.

For sale: Send SASE to CRC, P.O. Box 0731, Las Vegas NV 89125-0731 for brochures and list of species available. Limited bookings available for guided tours of herpetological collection sites in Nevada. Call/fax (702) 450-0065. URL <http://www.herp.com/crc/> E-mail: crsafetie@aol.com.

Free: large custom-built cage with stand, 7'1 × 27" w × 2' h, recessed water tub, four Plexiglas doors for easy access/cleaning and ample viewing, easy to move. Ralph, (847) 729-2234.

Herp tours: Adventure trips to **Madagascar!** Journey somewhere truly unique to seek and photograph nature on the world's least-studied mini-continent. For maximum herp fun and discovery, join Bill Love as we go where few people will ever venture in their lives. Let his experience assure a comfortable tour finding the most colorful and bizarre species on the planet! Get all the details at Blue Chameleon Ventures' comprehensive new website: <<http://www.bluechameleon.org>>, E-mail: bill@bluechameleon.org, or call (941) 728-2390.

Herp tours: Experience the Amazon! Road-ride in Costa Rica! See and photograph herps where they live, have fun doing it, make good friends and contacts, and best of all . . . **relax!** From wildlife tours to adventure travel, **GreenTracks, Inc.** offers the best trips led by internationally acclaimed herpers and naturalists. See our website <<http://www.greentracks.com>> or call (800) 9-MONKEY. E-mail: greentracks@frontier.net.

Wanted: west Florida reptile collector would like to hear from other reptile collectors from all parts of the U.S. to trade, buy, sell reptiles of all types. Tony Picheo, 11080 lillian Hiway, Pensacola FL 32506, (850) 453-8133.

Wanted: big-headed turtles; mata mata turtles; Mexican giant mud turtles (*Staurotypus triporcatus*); exceptionally large common snappers (45 lbs. & up); large alligator snappers (over 90 lbs.); spectacled caiman from Trinidad, Tobago and Surinam; dwarf caiman; smooth-fronted caiman; albino turtles (except red-eared sliders). Walt Loose, (610) 926-6028, 9:00 A.M. – 1:00 P.M. or after 11:30 P.M. Eastern Time.

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, (773) 588-0728 evening telephone, (312) 782-2868 fax, E-mail: <MADadder0@aol.com>.

**Chicago Herpetological Society
Statement of Income and Expense**

	2001		2000	
	INCOME	EXPENSE	INCOME	EXPENSE
Membership	17,124.68	350.00	20,567.27	424.34
Telephone		537.51		534.81
Miscellaneous Postage		98.79		59.00
Monthly Programs		3,388.68		2,025.18
Supplies and Equipment		162.67		52.20
Books and Merchandise	1,319.00	1,400.18	89.18	
Bulletin:				
Printing & Postage		18,309.26		21,330.45
Back Issues	163.00		114.50	
Advertising	500.00		975.00	
Raffle	981.00		1,174.00	
General Meetings		2,000.00		2,050.00
CHS ReptileFest	15,078.00	12,163.27	10,835.00	13,022.77
Zoo Field Trips	735.00	1,095.00		
Bank Charges		88.75		
Shows		750.00		1,160.37
Grants		1,750.00		2,150.00
Donations	833.00	500.00	1,346.25	1,334.00
Refreshments/Picnic		115.70	36.00	75.34
Miscellaneous	493.04	288.08		1,059.49
Interest	845.05		2,684.02	
Insurance	94.77	1,133.00		979.00
Awards		8.04		325.47
Amazon.com	102.33		142.92	
2001 Midwest Symposium	13,964.18	12,735.86		521.45
	52,233.05	56,874.79	37,964.14	47,103.87

Cash as of 31 December 2000	\$45,353.03
2001 Income - 2001 Expense	(4641.74)
Cash as of 31 December 2001	\$40,711.29

News and Announcements

VOLUNTEER FROG MONITORS NEEDED

For the third straight year, several member organizations of the Chicago Region Biodiversity Council (more popularly known as “Chicago Wilderness”) will participate in a volunteer frog monitoring program coordinated by the Chicago Region Audubon Office. The surveys will take place in natural areas located throughout much of the Chicago Region. The Chicago Herpetological Society is a member of Chicago Wilderness, and this will be a perfect opportunity for CHS members to get more involved in a local conservation activity.

In order to become an official “frog monitor,” volunteers are required to attend an orientation and frog identification workshop. Workshop attendees will be given a complimentary copy of an audio CD or Tape of local frog calls (production of which was partially sponsored by CHS). Participants should also be prepared to commit to conducting four nighttime surveys between March and June. County coordinators will be present at each workshop to help participants create survey routes near their homes. Six workshops have been scheduled for spring 2001. The following are dates, times, and locations of the workshops:

DuPage County: January 29, 7 to 9 P.M.

Ground and Resources complex, Blackwell Forest Preserve, 29 W 220 Mack Road, West Chicago, Illinois.

Lake County: February 9, 10 A.M. to 1 P.M.

Greenbelt Cultural Center, 1215 Greenbay Road, North Chicago, Illinois.

Kane County: March 16, 9 A.M. to Noon.

Potawattomie Community Center, St. Charles, Illinois.

McHenry County: February 2, 10 A.M. to 1 P.M.

Prairie View Education Center, 2112 Behan Road, Crystal Lake, Illinois.

Will County: February 16, 9 A.M. to Noon.

Environmental Learning Center, 20851 S. Briarwood Lane, Mokena, Illinois.

Indiana: February 27, 7 to 9 P.M.

Bailly Ranger Station, Indiana Dunes National Lakeshore headquarters complex, 1100 N. Mineral Springs Road, Porter, Indiana.

Note that Cook County will not participate this year. Cook County residents may still participate in other area counties as space permits, or as needed. Before attending a workshop, or for more information, contact the Habitat Project, Audubon of the Chicago Region, at (847) 965-9239, ext. 46, or through their web site at: www.habitatproject.org.

MIDWEST EPHEMERAL WETLANDS CONFERENCE

The U.S. EPA, U.S. Fish and Wildlife Service, and Partners for Amphibian and Reptile Conservation (PARC: www.parcplace.org) will host a two-day conference, February 20– 21, on “Midwest Ephemeral Wetlands.” Ephemeral wetlands are depressional bodies of water which in most years hold water only seasonally. They normally dry (usually in summer), which prevents colonization by fishes. Exclusion of predatory fishes in turn promotes establishment of unique communities of aquatic invertebrates and amphibians.

Most ephemeral wetlands are isolated from stream systems or other navigable waterways. Unfortunately, a recent Supreme Court Decision has removed protections that ephemeral wetlands were provided under section 404 of the Clean Water Act. Some experts estimate that ephemeral wetlands may provide over 70% of the amphibian breeding habitat in the Midwest. Thus it is crucial that concerned citizens become informed about ephemeral wetland issues, and support new state or local legislation to protect these important habitats.

The conference will be held in downtown Chicago and is open to all interested citizens; there is no registration fee. As of this writing, the meeting site was being changed due to higher than anticipated attendance. However, those interested in attending should be able to find out more, and register by visiting the U.S. EPA Region 5 web site: <http://www.epa.gov/r5water/ephemeralwetlands/2002conf.htm>.

News and Announcements (cont'd)

HERP OF THE MONTH

To promote attendance at the CHS monthly meetings, the Board of Directors has agreed, on a trial basis, to offer a new monthly feature known as "Herp of the Month." Each monthly meeting will showcase a different herp and CHS members can bring one specimen of the "Herp of the Month" to be judged against other entries from other CHS members. Ribbons and/or trophies will be awarded to the top three winners.

For the January 30 meeting, members are asked to bring skinks—any lizard belonging to the family Scincidae will do.

NOAH PRESENTS A FREE PROGRAM BY BERT LANGERWERF

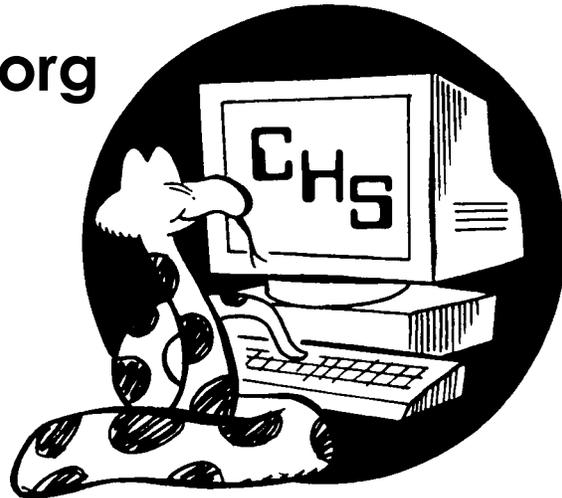
At 7:30 P.M. on Wednesday, February 13, the Northern Ohio Association of Herpetologists (NOAH) will present a free and open to the public slide program entitled "Breeding Lizards in Alabama." The speaker will be Bert Langerwerf, owner of Agama International. The event will be held at the Rocky River Nature Center, North Olmsted, Ohio. For detailed directions call the NOAH Information Line at (440) 354-9747, or visit the NOAH web site: www.noahonline.net.

Next time you surf the WorldWide Web, crawl, run, slither, slide, jump, or hop over to the CHS web site!

www.chicagoherp.org

You'll find:

- **Announcements**
- **CHS animal adoption service**
- **CHS events calendar & information**
- **Herp news**
- **Herp links**
- **Meeting/guest speaker information**
- **Photos of Illinois amphibians & reptiles**
- **Much, much more!**



Chicagoherp.org is accepting applications for banner advertisements or links from herpetoculturists and manufacturers of herp-related products. Visit the site and contact the webmaster for details on how you can sponsor CHS!



THE BUSHMASTERS (Genus *Lachesis* Daudin 1803)

MORPHOLOGY IN EVOLUTION & BEHAVIOR by Dean Ripa.

A book on CD-ROM with over 300 never-before-published color photos!

The definitive guide to the world's largest pitviper is now available. By far the most complete study of these gigantic pitvipers, it includes an intensive look at bushmaster life habits, unique mating rituals, reproduction, combat, feeding tactics and the effect of these behaviors on bushmaster morphology. This book is a literal re-writing of the systematics of the genus. Ripa's own harrowing near death episodes are recounted in detail, making this the only firsthand, autobiographical look at bushmaster bite ever written.

\$10 discount for CHS members. Regular price is \$37.95. CHS member's price for limited time is \$23.95 + \$4 shipping and handling (within US and Canada). Outside US and Canada add additional \$3 shipping. Ordering details at www.bushmasteronline.com

CHS MEMBERS



WE NEED YOUR HELP!

ReptileFest 2002 is almost here...

What is ReptileFest?

The nation's largest educational reptile and amphibian show. It's an event where CHS members display their animals and talk with the public about reptiles and amphibians. (No animals are bought or sold.) Last year, more than 2,700 people attended!

When and Where is ReptileFest?

The weekend of April 6-7 at the University of Illinois - Chicago's P.E. Building. (It's just a few minutes southwest of downtown Chicago). Open 10 am - 5 pm both days.

Why should I help?

The event raises money to support our CHS programs such as grants, it increases the public's awareness of diversity and conservation issues, and it's a lot of fun!

How can I help?

By being an exhibitor, serving on the committee, or helping with set-up of the event. Any amount of time you can give will make a difference. If you only participate in one CHS event each year, this should be it - reserve the date right now!

Fill out the enclosed exhibitor application **today** or contact **Darin Croft** at (773) 288-8851 / dcroft@fieldmuseum.org
You can also check out our **website**: www.chicagoherp.org

UPCOMING MEETINGS

The next meeting of the Chicago Herpetological Society will be held at 7:30 P.M., Wednesday, January 30, at the Peggy Notebaert Nature Museum, Cannon Drive and Fullerton Parkway, in Chicago. **Dr. Natalie D. Mylniczenko**, a veterinarian with the Lincoln Park Zoo, will speak on "Caecilians: Husbandry and Medical Management."

The program for the February meeting is not definite as of this writing

The regular monthly meetings of the Chicago Herpetological Society now take place at Chicago's newest museum—the **Peggy Notebaert Nature Museum**. This beautiful new building is at Fullerton Parkway and Cannon Drive, directly across Fullerton from the Lincoln Park Zoo. Meetings are held the last Wednesday of each month, from 7:30 P.M. through 9:30 P.M. Parking is free on Cannon Drive. A plethora of CTA buses stop nearby.

Board of Directors Meeting

Are you interested in how the decisions are made that determine how the Chicago Herpetological Society runs? And would you like to have input into those decisions? If so, mark your calendar for the February 15 board meeting, to be held at the North Park Village Administration Building, 5801 North Pulaski Road, Chicago. To get there take the Edens Expressway, I-94, and exit at Peterson eastbound. Go a mile east to Pulaski, turn right and go south to the first traffic light. Turn left at the light into the North Park Village complex. At the entrance is a stop sign and a guardhouse. When you come to a second stop sign, the administration building is the large building ahead and to your left. There is a free parking lot behind the building.

The Chicago Turtle Club

The next meeting of the Chicago Turtle Club will be on Sunday, January 27, 1:00 – 3:30 P.M., at the North Park Village Nature Center, 5801 N. Pulaski, in Chicago. Meetings are informal; questions, children and animals are welcome; parking is free. For more info call Lisa Koester, (773) 508-0034, or visit the CTC web site: <http://www.geocities.com/~chicagoturtle>.

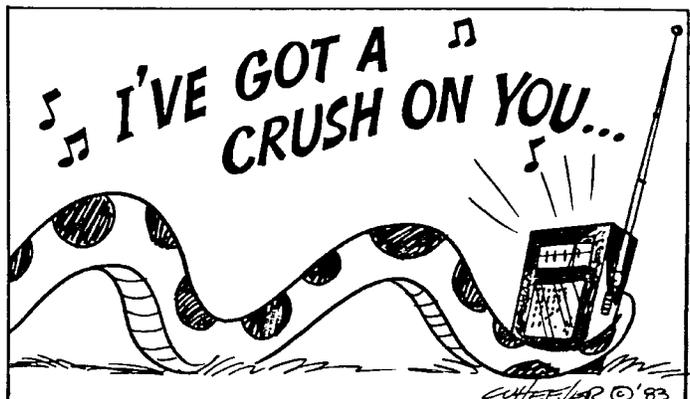
2002 SALAMANDER SAFARI

This year, the annual CHS Salamander Safari will be held March 23, 9 A.M. – 3 P.M., beginning at the newly renovated Plum Creek Nature Center at Goodenow Grove Forest Preserve in Will County. Driving directions will appear in a future *Bulletin*. From the nature center we will drive to a new Forest Preserve District of Will County land acquisition approximately 2–3 miles north of the nature center, and search for amphibians known to occur at this site. Species found or heard calling in previous inventories include blue-spotted salamanders, gray treefrogs, spring peepers, chorus frogs, bullfrogs, green frogs, and northern leopard frogs. Species not yet found but possibly occurring (or occurring at preserves nearby) include spotted salamanders, newts and wood frogs. As in past safaris, CHS members may bring interesting animals from your personal collections for photography and display purposes. Coffee, juice and donuts will be provided, and a good time will be had by all!

DONATIONS TO THE NOVEMBER 28 RAFFLE

The following is a listing of those businesses and individuals who generously donated items for our monthly raffle at the November 28 meeting: SuperPet; Hagen; ZooMed; Lixit; Marcia Rybak; Fran Kostka–KFK Jewelry; Ron & Dotty Humbert; Greg Brim; Sally Hajek; Cheryl Roge–Best Friends Animal Hospital; Gary Fogel; and Charlotte Henkle.

THE ADVENTURES OF SPOT



Periodicals Postage
Paid at Chicago IL

CHICAGO HERPETOLOGICAL SOCIETY

Affiliated with the Chicago Academy of Sciences

2060 North Clark Street • Chicago, Illinois 60614
