

THE FORKED TONGUE

THE MONTHLY NEWSLETTER OF THE GREATER CINCINNATI HERPETOLOGICAL SOCIETY

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April 2004

The Editor's Den

By Grady Calhoun

The March Forked Tongue features an article on housing baby colubrids, just in time for baby season.

Calendar of Events

5/5/04 Monthly Meeting at the Cincinnati Nature Center; Neil Brae will be speaking on the History of Herps in Mythology and Folk Lore.

5/8/04 +

5/9/04 Educational Program at Museum Center.

6/2/04 Monthly Meeting at the Cincinnati Nature Center; Will Bird will be speaking on the Kentucky Pine Snakes (tentative).

7/7/04 Monthly Meeting at the Cincinnati Nature Center; Wendy Lymm, DVM, will be speaking on reptile parasites.

8/4/04 Monthly Meeting at the Cincinnati Nature Center; Steve Franz. Topic TBD

Treasurer's Report

Checking Account - \$1097.23

Martin Memorial Fund - \$1215.

May Meeting Walk Through CNC

We have arranged to take a walk through the Cincinnati Nature Center, our new home, right before the May meeting. If you would like to take part, please meet at 6:00 pm at the nature center. This is a great place and we are almost certain to see herps.

April Meeting Highlights

Due to a family matter, Winston Card was not able to attend the April Meeting. Our own Dean Alessandrini came through with a wonderful, Powerpoint presentation on conservation efforts with Eastern Indigo snakes.

Martin Memorial Fund Proposal

At the April meeting, Dean mentioned a proposal put forth by the Kentucky Reptile zoo to receive an award from the Martin Memorial Fund. We will vote on this proposal at the May meeting. The request is for \$500 to be used in a radio-tracking study of Timber Rattlesnakes. A of the study follows:

The May meeting will be held on Wednesday May 5th at 7:30 pm at the Cincinnati Nature Center

The timber rattlesnake (*Crotalus horridus*) needs to be studied in Kentucky for two reasons. First, Kentucky is one of the few states where there still may be large populations of this snake. Second, minimal work has been done in Kentucky on *Crotalus horridus*. This study will focus on rattlesnakes in Natural Bridge State Resort Park in Powell County, in the Eastern Highlands region of Kentucky. Virtually nothing is known about timber rattlesnakes in this part of Kentucky. Home range size, activity patterns, habitat use and areas important to timber rattlesnakes such as dens and birthing areas will be determined. The study will also examine how snakes treat areas that are used heavily by people. The effectiveness and usefulness of short-distance translocations of nuisance snakes will also be explored.

Timber rattlesnakes will be captured at Natural Bridge State Resort Park. They will be found using hand searching and road cruising. The location of each capture will be recorded and flagged for later use in distance measurements. Length, weight, body condition, sex, and any identifying marks will be recorded. The snake will be implanted with a radio transmitter intercoelomically. This surgery will be performed by either a qualified vet or by the researcher, who will be taught by the vet. The snake will be released at the site of capture within 24 hours of the surgery to reduce stress and create as minimal a disturbance as possible. The marked animals will be located once a day during the activity season, and their location and habitat characteristics will be recorded.

Selected habitat will also be considered during this study. At each capture location, several habitat characteristics will be recorded: date, time, temperature, % cloud cover, precipitation, substrate, inclination, % canopy closure, % surface vegetation, distance to nearest fallen log, distance to nearest rock or rocky outcrop, and distance to nearest human use area or activity. This list is adapted from Reinert and Zappalorti (1988). Point-intercept sampling using a densitometer will be used to measure canopy and surface cover. Measurements will be made only if the snake will not be disturbed. If moving close to the snake is unnecessary for relocation, measurements will be taken on another

day, as soon as the snake moves to a new location. The characteristics will also be recorded at random sites throughout the study area, and at random sites within each animal's home range. Because the home range boundaries will be unknown until late in the study, the proposed home range of each snake will be determined from its first location, using the average size of ranges from the literature. Measurements will be taken at random distances and directions from each relocation site, at a point within the assumed home range and a point outside of this range. When the true home ranges have been determined, the data will be adjusted accordingly. The behavior of the snake when discovered will also be recorded, as will any change in condition from a previous capture. Behavior observations will be recorded based on an ethogram (Table 1). On subsequent relocations, distance moved from the previous location will be recorded. An attempt will be made to locate snakes daily, but the researcher will locate the snakes during different times of the day, including evening, night, and early morning. No other research has been found where *Crotalus horridus* were tracked at night.

If a snake is encountered by either the researcher or park personnel in an area where it is close to people, or if it is otherwise determined to be a nuisance animal, a short-distance translocation (SDT) will be performed. An SDT was described by Sealy (1997) as less than 200 m from the capture site, and I will use the same definition. Whenever possible, I will use SDT as opposed to long-distance; evidence suggests long-distance translocations have an adverse effect on the snakes. Movements of translocated snakes will be observed to determine if and when snakes resume normal activity, and any recurrences in nuisance behavior will also be recorded.

Data Analysis

Home range sizes will be determined for each radiotracked snake using harmonic mean analysis of locations as described by Reinert (1992), and also by the convex polygon method, as this has been used historically (Reinert and Kodrich 1982, Madsen 1984). Additionally, I will evaluate the home range for each snake using Reinert and Zappalorti's (1988) method for examining changing activity areas within the home range. Data will be broken down into blocks of time representing one month each, and the home range will be determined for each block by using harmonic mean analysis. This should provide a view of any shifting of activity areas over time.

The shortest distance to a human use area from the home range will be determined for each snake. If the snake's home range includes a human

use area, the percentage of the total area the human use area represents will be calculated.

Mean daily distance moved will be determined.

Activity patterns will be assessed by a MANOVA for the effects of independent variables (time of day, month, temperature and other weather variables) on each recorded behavior. Habitat selection will also be examined by an ANOVA for the effects of the variables listed above; this will allow both an analysis of the snakes' use of human-use areas and their microhabitat preference in general. This approach is modeled after Reinert and Zappalorti (1988,) except that I will use an ANOVA instead of a MANOVA, as I will most certainly have a smaller sample size, and may not have different groups (male, non-gravid and gravid female) as they did. If I do sufficient data to conduct a MANOVA using the different groups, I will do so.

Comparing mean daily distance moved during the first 5 days after translocation to mean daily distance moved will assess the impact of translocations. By using a MANOVA and the variables listed above, I will also compare translocated vs. non-translocated snakes. A translocation will be considered a success if the snake returns to seemingly normal behaviors and if it does not recur as a nuisance snake. Snakes whose home ranges include human areas may be more prone to being a nuisance animal, and so if the data permit the number of nuisance snakes with human-use areas in their home range will be compared to number of nuisance snakes with no human-use areas in their home range using a t-test.

Classified Advertizing Policy

GCHS Members may run a free classified ad of 7 lines or less at no charge for an unlimited time; however, the ad will be canceled after one month unless the editor is informed to continue it.

Please include scientific names for the animals with your ad as well as your phone number and area code. Ads of up to 7 lines for non-member are \$2 per issue; ad charges for items more than 7 lines long are as follows:

Business card size	\$3 per issue
1/4 page	\$6 per issue
2 page	\$10 per issue
Full page	\$20 per issue

The GCHS is not liable for the quality of the merchandise advertized. The Society also reserves the right to refuse any ad considered inappropriate.

Requirements for Submitting Articles to the Forked Tongue

Articles can be submitted via 3.5" floppy disk or hard copy to Editor, GCHS 11470 Gatch Hill Road, Aurora, IN 47001.

Articles may be e-mailed to Grady Calhoun at gcalhoun@seidata.com.

Black and white photographs can be included with articles. Photo submissions should include your name, phone number, and description of photo on the back. Photos can be returned. All time dependent submissions must be in the editors possession no later than the meeting previous to the desired publication.

Classifieds

For Sale: Juvenile Amazon tree boas (*Corallus hortulanus*), brown phases, will be feeding when sold \$15 each. Call Al Winstel at 513-729-2563

For Sale: Grey banded kingsnake, last year's hatchling, Still very small due to a prolonged hunger strike, but is now eating live pinkies. \$35. Call Grady at 564-6041

For Sale: 7.0 '03 Tiger Rat Snakes (*Spilote pullatus*) Very well started, nice black and yellow coloration. Approximately 30 inches or more. Feeding voraciously on live hoppers. \$60 each or two or more for \$50 each. Call Marc (859) 344-9626

Discount: A 10% discount is offered to all card-carrying members of the GCHS at *All Creatures Animal Hospital*. Dr. Dan Meakin, All Creatures, 1894 Ohio Pike, Amelia, OH 45102, 513-797-7387.

Discount: A 10% discount is offered to all card carrying members of the GCHS at Dr. Dahlhausen's Veterinary Clinic, 5989 Meijer Dr., Suite 2, Milford, Ohio 513-576-0131

(Number to left of decimal indicates males; number to right of decimal indicates females; number to right of second decimal indicates number of unknown sex. For example, 3.2.1=3 males, 2 females, and 1 unsexed specimen)

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Currently Held Positions

President (513) 564-6041	Grady Calhoun (812) 926-1206 Editor Grady Calhoun	Vice President (812) 926-1206	Dean Alessandrini (513) 347-0099
Treasurer	Peggy Fille (513) 528-4452		(513) 564-6041
Sargent-at-Arms	Bruce Fille (513) 528-4452	Education Committee Co-Chairman	
Advisor	Ray Whitson (859) 342-8842	Peggy Fille	(513) 528-4452
Secretary	Vacant	Chris Bauer	(513) 424-5818

About the GCHS

The Greater Cincinnati Herpetological Society holds monthly meetings which typically consist of a short business section, a refreshment intermission, and a program related to herpetology. Both members and nonmembers are invited to attend. Membership is open to anyone with an interest in reptiles and amphibians. New members may sign up by mail or at the monthly meetings. Members receive monthly issues of *The Forked Tongue* and free classified advertising. Annual dues should be directed to the secretary at the society's mailing address, according to the rates below:

Student \$10.00	Corresponding \$10.00
Individual \$12.00	Sustaining \$25.00
Family \$18.00	Institutional \$30.00
Contributing \$50.00	

Why Be a Member?

Receive monthly issues of *The Forked Tongue*
\$Meet individuals knowledgeable about herpetoculture
\$Have access to captive-bred herps and feeder animals
\$Participate in society-sponsored field trips, and outings.
\$Receive a 10 percent discount on herp-related items and services when you show a valid membership card at the following establishments:

Delhi Pet Center	(513) 451-4015
Kentucky Reptile Zoo	(606) 663-9160
Harrison Pet Center	(513) 367-1115
All Creatures Animal Hospital	(513) 797-7387
Dr. Dahlhausen's Veterinary Clinic	(513) 576-0131.

P.O. Box 14783
Cincinnati, OH 45250

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