
 HERPS IN THE CLASSROOM
 by

Dr. Thomas H. Krakauer,*
 Natural Science Chairman,
 SCIENCE MUSEUM of VIRGINIA

Foreword:

"With all due respect to the forces that drive an unsuspecting adult into a position in which he is willing, albeit anxious, to escort 16 nearly primal adolescents into a moderately inaccessible area... at night... in order to sample' such forms of herpetological interest unfortunate enough not to have escaped the area of study, this short work is dedicated to those who helped."
 (Caleb L. Hall, Jr.)

Thus began the report of one of the students -- all primary and secondary school teachers -- in a Field Herpetology mini-course that I taught. Virginia Polytechnic Institute and State University and the Science Museum Association of the Roanoke Valley co-sponsor a series of environmental education courses for graduate credit in Roanoke. The theme of all of courses is that ecology and environmental education should be taught outdoors.

Why Field Herpetology ?

What does it have to do with environmental education? Certainly, amphibians and reptiles aren't dominant animals. The answer is simple. Students think reptiles and amphibians are particularly fascinating. Once you catch students' attention with something of interest you might teach them something else. For some, learning could become less formal and more fun. For older students, the concepts of the ecological niche competition and ecological methods might become more palatable when sandwiched in between a field trip and giggles over the name Slimy Salamander. For younger students, keen interest in a topic of study may give purpose to their reading, poetry, or (believe it or not) their physical education. By reciting the snake myths that they have been told they can bring something of themselves into the classroom and become more involved.

The statement that amphibians and reptiles catch

the students' attention is more than just the biased comment of a herpetologist. In the planning for the Western Division of the Science Museum of Virginia we conducted, through a contract with VPI&SU, an educational needs and resources study in order to determine what role the museum should play and what are the available local science resources. One part of this study was a questionnaire given to administrators, the general public, teachers, and school children. The data from 1,387 questionnaires filled out by elementary school students reveal that 40 per cent would like to know more about reptiles and amphibians. Of the 24 choices only animals, astronomy, and caves, mountains, and hills, ranked higher on the "I would like to know more" question. The study of reptiles and amphibians was also high on the list of favorite subjects.

Continued on page two:

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VaHS BULLETIN is a newsletter appearing at least six times a year. Its pages are open for articles or comment on topics related to Virginian herpetology. The principal activity is the state survey of reptiles and amphibians, (Revised list available soon.) Roster issue under preparation.

VaHS BULLETIN is sent, gratis, to Virginia's university and college biology, zoology, and natural science departments. Science and biology teachers --high school or junior high-- may receive the VaHS BULLETIN (with full membership) at \$1 a year; please make request on a school letterhead if possible.

HERPS IN THE CLASSROOM:(continued from page 1)How have we been trying to exploit this interest?

The first step is working with the teachers and give them specific ideas about how herps can be used in the classroom. Since a teacher teaches more than 100 students a year for each year of teaching, by working with the teachers it is possible to reach more than just individual students on a one-time project. This approach complements working one-to-one with interested students.

The one credit hour course consists of two lectures on amphibians and reptiles, and on how the local herpetofauna can be used in the classroom. The teachers are provided with the titles of reference works. There is a late afternoon and evening field laboratory. After the field trip, each teacher has a month to carry out an outdoor activity with his or her students. The course concludes with a session in which the teachers distribute a written report on their field activity and discuss its strengths and weaknesses.

The projects have ranged from night-time salamander walks with the (high-school) biology club, to two-day camping trips with 20 students (5th and 6th grade), to repeated trips to one area as part of an "environmental assessment" (4th grade), to field work combined with classroom study of reptilian and amphibian locomotion (4th grade), to a night-time salamander walk followed up in the classroom by student-originated projects (high school). One teacher used herpetiles to illustrate protective coloration and mimicry (scout troop).

The teachers learned, firsthand, the value of advanced planning in conducting a field activity. This involves classroom preparation, so that when in the field the students remember the what and why, scouting the area to know what to expect in terms of habitat, herpetiles, and hazards, and contacting people to help lead so that there is a sensible ratio of students to leaders.

The teacher must obtain written permission from the student's parent or guardian. Since the parents have had to sign the permission slips, the liability risk to the teacher is reduced except in cases of gross negligence. The advanced planning minimizes the possibility of being charged with gross negligence. The request for written permission helps the teacher in another way. It acquaints the parents with creative teaching techniques. A good precaution is to obtain a pertinent medical history from the parents (insect allergies, epilepsy, diabetes, heart condition, and so forth).

With advance planning, the field activities have proven uneventful with such minor exceptions as a copperhead under a log turned over by fifth graders, the school children conducting a "midnight raid" on the food supplies, and the school trouble-maker starting a 2:00 a.m. rock fight! These are the risks, but they are worth it.

Dr. Krakauer's article on Herps in the Classroom is continued on page 3. (Comments to the author.)

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ADDRESS ALL COMMUNICATIONS TO:

(on VaHS BULLETIN, collecting records, etc.)
mailing list, address changes,

VaHS Secretary
P.O. Box # 1376
LEESBURG, VA 22075

(on annual support of VaHS)
Mr. Louis C. Baker (BIOL.)
Yorktown High School
5201 North 28th Street
Arlington, VA 22207

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HERPS IN CLASSROOM: cont'd

The best way to report the response to the course is with another quote. "It is felt that the type of field work had great value to both students and teachers. Not only is there an assimilation of hard data by both parties and an involvement with techniques and fauna previously unfamiliar, but there is also that lowering of classroom barriers making realistic communication a greater possibility. There is no question of loss of authority, on the contrary, most students would seem to reflect a greater appreciation of the student/teacher relationship in the absence of school structure. This is not meant to imply that the trip should be done in the absence of structure; in fact, more will be necessary to insure both success and safety."

In the second article of this series, I will present specific projects in sufficient detail so that it might serve as a sort of lesson plan for other teachers. I would appreciate any letters telling me about how you have used herpetiles in (or out of) the classroom.

(Dr.) Thomas H. Krakauer
SCIENCE MUSEUM of VA.
P.O. Box # 20
ROANOKE, VA 24001

ABOUT THE AUTHOR:

Dr. Thomas H. Krakauer joined the Science Museum of Virginia staff in the early summer of 1974. He was formerly assistant professor of biology at Hollins College, Va. As Chairman of the (Western) Natural Sciences Division of The Science Museum of Virginia, he is responsible for the development of natural sciences programs; assists in the planning process for the Western Division facility; and aids in the implementation of science education programs in cooperation with the Science Museum Association of Roanoke Valley. He received his A.B. degree in biology from the University of Rochester, an MS in biology from the University of Miami, and a PhD in zoology from the University of Florida. He served as a teaching assistant at University of Miami and as an interim instructor at University of Florida before joining the Hollins College faculty in 1970. Dr. and Mrs. Krakauer attended the regional VaHS meeting held at Roanoke College, Salem, Va., October 1970.

Since 1973, he has been an adjunct assistant professor at Virginia Polytechnic Institute and State University.

HOW TO MAKE YOUR SCIENCE PROJECT SCIENTIFIC (1974) by Thomas Moorman, 88 pp. Atheneum Publishers 122 E 42d Street, N.Y.C., NY. 10017.

A SCIENCE MUSEUM FOR VA?

A museum is not just a repository, nor is it only the name of a large, imposing building. It should be an adjunct to education. In recent years, several exciting science centers of this sort have been constructed in this country.

In 1970, Virginia's Science Museum was created by state statute. It will be a decentralized museum with the physical sciences based in the Capitol Division, the natural sciences in the Western Division, and oceanography in the Tidewater Division.

The Science Museum and the Virginia Herpetological Society share similar goals of education and conservation. Anyone interested in learning more about the Science Museum, or in helping to get it off the drawing boards should write to:

Dr. Paul Knappenberger, Director, The Science Museum of Virginia, 217 Governor Street, RICHMOND, VA 23219

DO YOU PRESERVE YOUR COPIES OF THE VA. HERPETOLOGICAL SOCIETY BULLETIN ?

No "fixative" is required! NOTICE that the material is laid out so that the "ads", membership blanks, and the VaHS collecting data blanks, etc., are at the bottom. Clip along the dotted lines so that you have an 8 1/2" X 11" page. Use two, or preferably a three, hole punch on the left margin for placement of each successive VaHS BULLETIN in a ring binder. Many of the articles will have permanent value. Some limited numbers (back issues) are available to fill reference sets. These back orders will be worked off as soon as possible -- but your patience is solicited in connection with them.

DR. KNIPLING RETIRES, WAS
VaHS TREASURER SINCE 1958

During the 12th Annual State Science Teachers' Conference, Fredericksburg, Va., October 4-5, 1974, Dr. Phoebe H. Knipling mentioned to your editor that her future plans are such that might preclude continued service as VaHS Treasurer. (Mrs.) Phoebe Knipling, Science Supervisor for the Arlington County Secondary Schools, and sparkler of the No. Virginia Science Fairs, has served VaHS for over sixteen years as society treasurer and controller. Many young organizations, less well blessed, have foundered over finances and disappeared. It's a good rule to have someone tried and true to keep an eye on the income and the outgo! Dr. Knipling has done this without murmur over the period since the organization of VaHS. She was nominated to the post at the first annual meeting of the society in the Richmond, VA., area in September 1958 and was unanimously elected along with the society's slate of officers for 1958-1959.

We want Dr. Phoebe Knipling to know that we have appreciated her service to VaHS. She will be on the mailing list to get copies of the VaHS BULLETINS as long as she can keep us posted on her whereabouts.

LOUIS C. BAKER, BIOLOGY
TEACHER, IS NEW TREASURER

We had planned an "easy transition" for the new treasurer. VaHS BULLETIN No. 77 was to introduce him to the membership as "Associate Treasurer". One of the founding members, Louis C. Baker, a general biology teacher at Yorktown High School in Arlington, VA., has accepted the position of VaHS Treasurer succeeding Dr. Knipling. He is an old friend and we wish him well. Probably, one of the first orders of business under his aegis will be a Treasurer's report following the recent VaHS program support drive conducted through VaHS BULLETIN No. 75 and its (inside back cover) membership status report.

While it would seem that the VaHS, in shifting from a career woman to a man, is bucking a trend, such is not the case. The VaHS staff will include a career woman, Mrs. Dale L. Brittle, Guidance Counselor of Bowling Green Sr. High School, and the VaHS Directorate (to be announced) carries at least two women who are on the faculty of a Virginian college or university.

ORGANIZATIONAL PAGE

BILLING-BY-BULLETIN TEST
WAS EXTREMELY SUCCESSFUL

The first time we "billed" systematically was VaHS-B #75. It seems to have worked because we've had an overwhelming response.

If you did not return the membership application-renewal form with your envelope to the Treasurer or to the Secretary, then there is a chance that we may not carry your name in the membership roster. The roster is to appear in the early fall. We want it to be as complete as possible. Anyone who prefers not to appear in the membership roster should so notify the VaHS Secretary at the earliest opportunity.

We know the "all-purpose" forms were confusing but they are in keeping with the uniformity requirements mentioned below. We try to keep bureaucracy under control --minimal. If you were puzzled over the system, think of the records keeper at VaHS who suddenly hits blanks; no application card in the VaHS files to match a name on the mailing list!

Under the U. S. Postal Service regulations, all of the VaHS BULLETINS in a single mailing must be the same size and weight.

Under the U.S. Postal Service regulations, all of the VaHS BULLETINS in a single mailing must be the same size and weight as all others. A mailing consists of 200+ (usually 300) bulletins. The first mailing is sent to VaHS members and "exchange" members in other states. The second mailing is to prospective members and teachers in Virginia high schools (or in summer, to park or camp naturalists).

Membership cards are mailed all at one time, annually, so that the uniformity of size and weight requirement is not violated. Hence, we cannot customize each VaHS BULLETIN -- what is sent to one member must go to all. For example, we are aware that an SSAR ad is an "overkill" to some, but new to many not on mailing lists for national herpetological societies.

Requests for "sample" copies of the Bulletin are filled as soon as possible, usually in the second mailing.

WRITE:

Franklin J. Tobey, Jr.
Secretary, VaHS
P.O. Box # 1376
LEESBURG, VA 22075

MEETING ANNOUNCEMENT, NEW LETTERS, IDEAS, COMMENTS

6 February 1975

I have been interested in reptiles and amphibians for some time and am also interested in contributing to the VaHS Collecting Notes or files on species. Particularly, last summer I was employed as Park Naturalist at Westmoreland State Park. (Mr.) Gary Williamson, a good friend, gave me a list of current county records of reptiles of VA.

I would like some information concerning procedure for adding specimen records. For the most part, I have 35mm color slides, but several specimens are in my freezer or in the Old Dominion University collection under the direction of Dr. David Delzell.

(Mr.) W. S. Portlock

Lake Gaston Cottonmouths:

"I own property on Grassy Creek (Section of Kerr Dam). We have had cottonmouths for years!

(Mr.) Oliver C. Harwell
2850 No. Rochester St.
ARLINGTON, VA 22213

21 February 1975

Would you send me a copy of the booklet "LIZARDS of VIRGINIA"? I would like to use it in my classroom. Sincerely,

(Mr.) Doug Harvey
Biology Teacher
BATH Co. High School
Hot Springs, VA
24445

NEXT MEETING OF EASTERN SEABOARD HERPETOLOGICAL LEAGUE AT SMITHSONIAN

The next meeting of the Eastern Seaboard Herpetological League (ESHL) has been scheduled for Oct.18 (Saturday) 10:00 a.m. to 6:00 p.m. at the auditorium of the U.S. National Museum of Natural History in Washington, D.C. If you have a speaker or an item for the program -

Please notify:
*
(Mr.) Scott M. Rae,
417 Adahi Road SE
VIENNA, VA 22180

The 1975 October meeting will be sponsored by the Washington Herpetological Society and the Virginia Herpetological Society.

30 April 1975

Am sending a list below of salamanders, frogs and toads that I have seen in SCOTT County, VA. In the future, I hope to send photographs of these to VaHS to establish county records.

- Ambystoma maculatum
Spotted Salamander
- Cryptobranchus a. alleganiensis
Hellbender
- Aneides aeneus
Green Salamander
- Necturus m. maculosus
Mudpuppy
- Notophthalmus v. viridescens
Red-spotted Newt
- Plethodon g. glutinosus
Slimy Salamander
- Pseudotriton r. ruber
Northern Red Salamander
- Hyla c. crucifer
Spring peeper
- Hyla versicolor complex
Gray Tree Frog
- Rana catesbeiana
Bullfrog

I hope this will promote some interest in collecting down this way.

Charles Blankenbeckler
Rt#7, Box 551-A (SCOTT)
KINGSPORT, TENN 37660



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MEETING NOTICE INSIDE

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