VIRGINIA HERPETOLOGICAL SOCIETY

BULLETIN No. 75 AUGUST-SEPTEMBER 1974

HERPETOLOGICAL SPECIMENS COLLECTED IN LEE COUNTY, VIRGINIA: (I) AMPHIBIANS

by Dr. W. Leslie Burger*
VaHS Co-Founder and
Past-president

The CUMBERLAND GAP NATIONAL HISTORICAL PARK includes a part of Virginia that is of great zoogeographic interest. The park straddles the 3-state marker (Ky., Tenn., and Va.) and extends 12 miles north along the Cumberland Mountains. The Virginia sector (and the adjacent part of southwestern Va.) is drained by tributaries of the Tennessee River. (Part of the Gulf drainage system.) It is an area that has some species of animals found in no other portion of Virginia.

During the 10-day period (9-18 July 1958) collections of amphibians were made around Jonesville, about 17 miles east of the park, and around the Cumberland Gap in the SE portion of the park. Most of the collections were made in LEE County at the southwestern tip of Va. (Bell County, Ky., and Claiborne County, Tenn., in the close vicinity of Cumberland Gap, were visited briefly. Localities in the park are indicated by "C.G.N.H.P." Localities not otherwise indicated are all in LEE County, Virginia.

A total of 261 specimens was collected. They included 19 kinds of amphibians. A list of the additional expected forms will be added at the end of Part Two.

Where Rt. 654 crosses the Powell River, 2 miles S. of Jonesville the locality is known as Hurricane Ford. Here were collected: Northern Dusky Salamanders (12), Long-tailed Salamanders (5), Midland Mud Salamanders (1 adult and 1 larva), Blue Ridge Red Salamander (1), Gray Treefrog and a Fowler's Toad (one of each).

At Mill Hollow, on the NW outskirts of Jonesville, were found: Northern Dusky Salamanders (7), Northern Two-lined Salamanders (8 larvae), Northern Spring Salamanders (4 lar.) and some Midland Mud Salamanders (2 adults, 14 larvae).

At Lady Spring, on the N. edge of Cumberland Gap in Virginia, we took specimens of the Northern Dusky Salamander (7). This locality is in the C.G.N.H.P.

Willis Hollow and Willis Hollow Cave are given by Dr. Burger as a locality 1½ miles NE of Cumberland Gap. The nearest recorded cave ("Caves of Va.") is listed as the Cumberland Mt. Saltpeter Cave in Lewis Hollow. (Because of the similarity these may be one and the same.) Amphibians taken at Willis Hollow and Willis Hollow Cave (CGNHP) were:

Northern Dusky Salamanders (7), a Long-tailed Salamander, a Cave Salamander, Slimy Salamanders (24), E. Narrow-mouthed Frog (1), Gray Treefrogs (2), a Pickerel Frog, and Wood Frogs (2).

At Cave Shoals, 5½ miles S.E. of the community of Rose Hill, on the Powell River, the following amphibian specimens were collected: Cave Salamanders (3), Northern Greenfrog (1), and a Pickerel Frog.

At Hunter Gap on Powell Mountain, 4½ miles S.S.E. of Jonesville, Va., and above the smaller settlement at Blackwater, two juvenile American Toads were collected. Another American Toad was caught at the extreme SW end of LEE County, near the summit of the Pinnacle, a spot 1½ miles NE of the Tri-state Point, C.G.N.H.P.

Dr. Burger's report is continued on page two, in the central column.

DR. FUNDERBURG NAMED DIRECTOR OF N.C. STATE MUSEUM OF NATURAL HISTORY

Dr. John B. Funderburg has been named director of the State Museum of Natural History of North Carolina. The appointment was effective July 1.

Dr. Funderburg was chairman of the Biology Department and professor of biology at Randolph-Macon College, Ashland, Va. He has held professorships in ecology and zoology at N. C. State University, Florida Southern, and Duke Universities. He is a member of numerous scholastic and professional societies and has published nearly 70 papers in scientific publications. Dr. Funderburg holds a B.S. from East Carolina University, an M.S. in Wildlife Management and Conservation, and a PhD in ecology from North Carolina State University. He is a native of Wilmington, N. C.

Re: Parts One and Two of the BURGER REPORT on the reptiles and amphibians of LEE County, Virginia: We are working "long-distance (Dr. Burger is in Japan), any errors in the revised text will be attributable to the editor alone. Dr. Burger assented to publication of his report (to the Park Superintendent) while he was working with the late Dr. James Peters at the U.S. National Museum of Natural History.

AMPHIBIANS OF LEE CO.

(continued from page one)

At a pond near the Powell River, close to the intersection of Va. #642 and U.S. #58, the following amphibians were taken: Narrow-mouthed Frogs (3), Spring Peeper (1), Gray Treefrogs (5), Fowler's Toad (8), and Green Frogs (8). The site is about 4 miles E of Jonesville, Va.

This completes the list of salamanders, toads, treefrogs, and true frogs taken by Dr. *W. Leslie Burger while surveying in Cumberland Gap National Historical Park and its vicinity.

In VaHS BULLETIN No.76 -- we will present the other half of the Burger Report covering reptiles found in that extreme southwest Virginia area. These are to include four species found in Virginia for the first time (State records) and one found in western Virginia for the first time. This account has been based upon Leslie Burger's report to the Superintendent of the C.G. N.H.P., and is presented here with his permission. Dr. Burger is a past-president of VaHS. Since we have asked him to provide his "own approved" list of scientific names for the specimens he collected, we will defer a list until end of Part II.

EASTERN SEABOARD LEAGUE MEETING AGAIN AT STATEN ISLAND ZOO: HOSTS: NYHS

Saturday, October 26,1974 is the date of the next Eastern Seaboard Herpetological League (ESHL) meeting. It will be held at the Staten Island Zoo. Our hosts for this meeting are the SIZ staff and members of the New York Herpetological Society. Introductory remarks will be made by Mr. George Zappler, Curator of Reptiles and Director of the Zoo, succeeding the late Carl Kauffeld. We hope to see as many VaHS members there as can make it.

The Staten Island Zoo is reached by New Jersey Turnpike to Exit 13. Take Goethels Bridge and the S.I. Expressway (I-278)to the Hylan Blvd-Richmond Road exit (4-5 mi. from Geethels Bridge). Exit to traffic light then use left to Clove Road. Go N. to Broadway (1.5 mi.)take right-hand fork (B'way). Zoo is on left side in the second block on B'way. If you miss B'way fork, take Glenwood Place (one-way street) to right and turn left onto B'way one block to main entrance of the Staten Island Zoo. A visit will be made to the famous reptile collection during the breaks in the sessions. The last ESHL meeting on Staten Island was on 3 March 1973. (See VaHS BULLETINS #70 & 71.)

PLEASE USE THE MEMBERSHIP APPLICATION-RENEWAL FORM THAT APPEARS AS THE INSIDE COVER VaHSB#75.

INTRODUCTION TO HERPETOLOGY IN HIGH SCHOOL BIOLOGY CLASSES

by Mrs. Dale L. Brittle*
Guidance Counselor,
Bowling Green Sr. High Sch.

When teaching biology in high school, the teacher and students have the opportunity to study first-hand, the herpetofauna found in their state and locality. The study can be performed on several levels of investigation and experience. A good understanding of the environment in their given locality is of extreme importance. Once the students become familiar with this aspect of the study they will understand which species may be expected in a given type or kind of locality.

Resource material available through the school library and the VaHS will naturally be an essential tool in the students' preparation for studying reptiles and amphibians.

The Field Guide to Reptiles and Amphibians by Dr. Roger Conant, as well as the VaHS BULLETINS are useful materials for both classroom and individual use. The students are guided in the interpretation and understanding of these materials before taking field trips.

Ideally, if opportunities are provided for a visit to a zoo or museum, these become an added resource in that they give pupils an opportunity to study collected and preserved zoological material. The exposure may well prepare pupils for some of the experiences they may have in the field. Also, the function of specimen depositories can be discussed in this connection, and visited if accessible.

Field trip time for high school students is usually limited to two hours, and sometimes to fifty minutes per day which can put the student's own time spent in the field in a different perspective. Where students are not to have extended and supervised field trip exposure the necessity for adequate in-class coverage of purpose, methods, safety precautions, etc., is placed more squarely on the shoulders of the biology teacher. However, the student who will put in time in the field "on his or her own" will very likely reap some rewards-by way of collecting more specimens for laboratory study and identification.

State and county collections can be made from gathered materials. Some stress is now placed upon collecting, photographing and re-releasing specimens and the preservation of those found dead on the road for permanent record. (See VaHS B#48).

Students are instructed in the proper methods of preserving material and in properly identifying a specimen, including the recording and tagging of specimens. Collecting data slips are provided in the VaHS BULLETIN. The students find these to be useful when making class collections. Duplicate slips are run off as the need arises.

Students interested in photography as well, are encouraged to photograph their finds. Duplicates of their slides are given to the VaHS to support an unusual locality record or specimen. "Collecting with a Camera" by Mr. G. Brewster, (VaHS B#72-73), becomes required reading for these students and credit is given them for photographs and slides.

If sufficient interest is expressed in herpetology, students are encouraged to join the Virginia Herpetological Society and other similar organizations.

Students who generate an interest in, and an understanding of amphibians and reptiles can help the community realize the usefulness of these lower vertebrates in the local environmental balance. It has been noted that "killing snakes for the sole reason that it's a snake" has been diminished. Not only students, but other members of the community

donate living material to the high school biology laboratory for study. A few road-killed specimens have also been given to the school for identification and preservation.

With a general introduction to the herpetofauna in the classroom, high school students are placed in a better position from which to evaluate or relate to the natural world around them.

(Mrs.) Dale L. Brittle,*
Counselor,
Senior High School
Bowling Green, VA 22427

INEXPENSIVE RESOURCE MATERIAL

Conant, Dr. Roger,* "A Field Guide to Reptiles and Amphibians," (1958) Houghton Mifflin Co., Boston, (revised edition publication pending).

Mitchell, Joseph C.,* "The Snakes of Virginia" VIRGINIA WILDLIFE magazine (Feb. & April, 1974) Reprints available from:
Education Division,
Commission of Game and Inland Fisheries,
P.O. Box # 11104,
RICHMOND, VA 23230

VaHS BULLETINS:
#48 "Preserving Specimens and Developing Collections" (J.T. Wood,M.D.)

#72-73 "Collecting With A Camera" Parts I & II, by Mr. George Brewster,*

HERPETOLOGY IN THE HIGH SCHOOL CLASSROOM (cont'd)

VaHS BULLETINS:

#37-38 ('64) Snakes of Va.
#57-58 ('68) Turtles of Va.
#67-68 ('72) Lizards of Va.

Editor's note: These 3 special bulletins are out-of-stock at present. The planned reproduction of these under the title: "Reptiles of Virginia" is expected to relieve that situation. How soon it does so will depend upon your support. Please see the membership application and renewal form at the back end of this VaHS BULLETIN. (FJT)

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OPEN LETTER TO BIOLOGY OR SCIENCE TEACHERS IN VA. SECONDARY SCHOOL SYSTEM:

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VaHS is a "natural" for a biology (science) teacher in a Virginia high school whether herpetology is your particular personal preferred field or not.

The VIRGINIA HERPETOLOGICAL SURVEY seeks your aid (as a biologist) and that of biology students in the high schools of each of the state's 96 counties and the independent political subdivisions.

If you have students who are interested in the lower vertebrates (amphibians and reptiles) please tell them about the Virginia Herpetological Survey and suggest that they participate in this statewide program.

Please send the names of unusually interested advanced students and their home addresses to VaHS at P.O. Box #1376, LEESBURG, VA 22075 without delay.

The Virginia Herpetological Survey program is a statewide activity which is showing fine results.

HOW VaHS ASSISTS TEACHERS:

(1)VaHS BULLETINS suggest projects to alert students which will require your minimum supervision.

(2)It provides a ready reference source on the amphibians and reptiles of the state of Virginia.

(3)It is an activity requiring little expenditure of money - built for a department with a small budget, or little leeway.

(4)VaHS is a way to help interested students who seek information.

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9 July 1974
"I wish to acknowledge the receipt of the VaHS BULLETINS which I share with my pupils. VaHS has made invaluable contributions towards the dissemination of knowledge on the reptiles and amphibians of Virginia..."

(Dr.) Richard E. Ailstock
Annandale High School,
Annandale, Virginia 22003

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NOTES ON A COTTONMOUTH FROM PETERSBURG, VIRGINIA

An adult male eastern cottonmouth (Agkistrodon p. piscivorus) 52½ inches in length was killed by H.F. Webb on 2 Sept. 1973 in the Appomattox River halfway between the Appomattox Small Boat Harbor and Pye Alley, 1 mile NW. of Va. Rt. 645 and 684. This is the first one known from the Petersburg area of Prince George Co. The location is part of the large swampy area that characterizes the intersection of the Appomattox River and Swift Creek on the CHESTERFIELD and PRINCE GEORGE County lines. Other specimens are known from the Swift Creek area.

I was informed by W.W. Cato, owner of the Appomattox Small Boat Harbor, that the site of the killing was in the south channel of the river. This channel is a "dead" one and the bank consists of a mud plain. The north channel is deeper with a rapid water flow.

The occurrence of the E. cottonmouth in the Appomattox River suggests the possibility that this species occurs farther west than previously suspected. The north channel could, however, prevent this species from ranging any farther than the limits of the south channel in this area.

There is little information on the ecological requirements and limits of the cottonmouth in the northern part of its range. Indeed, what is its actual range in Va. ? Only more collecting and observation can answer this question and we, as herpetologists --amateur or professional-- should follow any good leads.

This specimen was donated to the Virginia Commonwealth University vertebrate collection and is cataloged as VCU 154.

(Mr.) Joseph C. Mitchell,
Dep't of Zoology,
Arizona State University
Tempe, Arizona 85281

COLLECTING NOTES S.E.VA

COLLECTING NOTES FROM PRINCE WILLIAM COUNTY, VA

The VaHS (Survey) has two color photos of an 8" E. Milk Snake (Lampropeltis t. triangulum) from near Thoroughfare, PRINCE WILLIAM County, Va. The collector was Mr. David Danko. The capture was in early October 1971 and the temperature was about 70°F with overcast skies.

DO COTTONMOUTHS OCCUR NORTH OF LAKE GASTON ?

Photographs in newspapers from the Lake Gaston area have raised the question of the occurrence of the eastern cottonmouth (Agkistrodon p. piscivorus) on the northern shoreline of the lake whether in N. Car. or Va. (Write VaHS) Recently, it has been found that there are two records along the southern shore of Lake Gaston. The specimens are in the collection of the State Museum of Natural History at Raleigh, N.C. Both were taken on the shoreline of Lake Gaston above the town of Vaughan, N.C. They are recorded as: NCSM 10255 and 12014. We are indebted to Mr. Bill Palmer of the NCSM staff for these records. These specimens are from Warren County, N.C., and they indicate the presence of the cottonmouth at a distance of some 3 to 4 mi.S of Brunswick County, Va.

Lake Gaston is an artificial lake created by the construction of a dam on the Roanoke River just NW of Roanoke Rapids, N.C.

It is suggested that VaHS members keep on the watch for occurrences of the E. cottonmouth on the northern shore of the lake.

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DUPLICATE (mail to VaHS) Cat.# _____

LETTERS, COMMENTS, IDEAS:

Tempe, Ariz.
16 August '74

Greetings from the Arizona Sonoran Desert. I register for graduate classes on the 19th and start classes on the 26th. My thesis will probably concern reproductive isolation between two closely related species of sympatric herps. I will most likely work with the lizards since they are abundant (locally). ...

I will check the Arizona State University collection for Virginia specimens and report the findings soon thereafter. If I can be of assistance to any VaHS member, please don't hesitate to write.

... The people here are friendly and the guys I am working with are most helpful. I think I am going to enjoy it here.

Cordially, /s/ Joe

(Mr.) Joseph C. Mitchell
Dep't of Zoology
Arizona State University
Tempe, Arizona 85281

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Joseph C. Mitchell is the author of the two-part feature article on the "Snakes of Virginia" that appeared in the February and April issues of the VIRGINIA WILDLIFE magazine.

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Portsmouth, Va.
16 October '74

"...concerning melanistic Heterodons in ... VaHS B. #72 (July-August 1973):

In the spring of 1970, while I was a graduate student at the College of William & Mary, a melanistic female Heterodon was brought to the lab. It had been captured in James City County, I believe. It was the largest hognose I had ever seen. The reason for its size and, the certainty of its sex, became obvious when she laid 31 eggs. She died immediately thereafter. (She had refused food in the laboratory and was covered with mites.) I think I felt two more eggs still inside after she died. Unfortunately, none of the eggs hatched.

The specimen should be in the preserved collection at William & Mary ... I would be interested in any further information you might receive on the subject of melanism in Virginia snakes.

(Ms.) Carolyn A. Somma
Biology Instructor
Tidewater Community College, Portsmouth, Va. 23703

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NOTICE TO NEW READERS:

VaHS BULLETIN, a newsletter, is the only publication of the Virginia Herpetological Society. Its pages are open for articles or comments on Va. reptiles & amphibians

We recommend VaHS membership for those residents of Va. who are more than casually interested in the herpetology of Va. A supporter of the program contributes $2 yearly ($3 if out-of-state). The principal activity is the state survey of amphibians and reptiles.

VaHS is not a club or a "hobby" group. It exists to fill the need for an easy exchange of useful information on the lower vertebrate animals found in the state. VaHS promotes individual or small team efforts, in the open field or in the biology laboratory, to learn more about native amphibians or reptiles with adequate scientific or technical supervision. A factsheet on the VaHS is being prepared for early issuance.

Membership is extended to all in Virginia who are interested. Membership is extended to any non-resident who is working on Virginian herpetology, or who, as a scientist, is working on species which range into Virginia. VaHS