

AN INTEREST IN HERPETOLOGY - A
FOOTHOLD FOR SCIENCE UNDERSTANDING

Some years ago, two young boys, while hunting for shells along the banks of the James River south of Hopewell, discovered some bones freshly exposed by a small landslide. Thinking they had found dinosaur bones, they took them to the Norfolk Museum for identification. The bones were not those of a reptile but of a 30 to 50 million year old sea mammal! The story is a tribute to the scientific curiosity of young Virginians. It is not without its parallel today.

An interest in unusual animals -- even living frogs, turtles, salamanders, lizards, snakes, etc. -- may be the door which opens to the wider vistas of the natural world and science. The pre-scientist is curious about nature. It is vital that interest be satisfied and not frustrated. With care, and sporadic supervision, enthusiasms may be channeled toward worthwhile goals.

An acquaintance with nature should begin in the schools, according to Irston R. Barnes, Audubon Society nature columnist, "where work in the natural sciences should - from the beginning - lead to familiarity with nature in the local environments. Thus, every student, in addition to visiting the museums, should investigate, and discover a variety of natural communities. What the

schools start, many will continue on their own if they are guided to a few books which cross the threshold from naming and identifying to asking questions and explaining wild-life in its natural setting."

From personal association with high school and college students, Dr. Glenn T. Seaborg, internationally renowned discoverer of several chemical elements, said he believes "we are succeeding in raising a whole new breed of outstanding American scientists and non-scientists who understand science." He noted that some universities are offering special science courses to "create this kind of scientific literacy." The courses testify to a keener understanding of the role of science in modern society as an urgent need of our times.

Man's ignorance leaves many frontiers to be explored by youth, according to Dr. Norman Hilberry, a former director of AEC's Argonne National Laboratory in Illinois. He told science teachers and students that the horizons of ignorance approach the infinite ... and lands of potential discovery will be limited only by the individual's own creative ability, depth of resolve, and native endurance. He cautioned students not to believe little remains to be discovered.

FOOTHOLD FOR SCIENCE (continued)

There is plenty of work left to be done by well-motivated, and only sporadically supervised, bio-science students who like to be out in the open or on the riverbank.

It is not always obvious to the biology student that he can make a real contribution to scientific knowledge. Important new data are needed to confirm or alter commonly held beliefs and educated guesses.

Virginian herpetology, for example, offers a wide range of opportunities. In (Va.)our own back yard there is one of the least-explored outdoor biological laboratories east of the Mississippi River Basin.

Knowledge of Virginian reptile and amphibian life forms is by no means complete. Only the surface has been scratched. Ideas about the range of many of the state's amphibians and reptiles, today, are based on inadequate collecting information. Many southwestern, and even central Virginia counties are, herpetologically speaking, "unknown" areas.

First records of many species, believed to occur, are there waiting for the alert collector. The species may be "on record" from a county to the north and also to the south. But in many counties -- there is just a real "blank".

With no record--i.e., preserved specimen in a scientific collection--the range of many species in these localities has yet to be properly validated.

New locality records for Virginian reptiles and amphibians are being actively sought. The main goal of the Va. Herpetological Survey is to completely ascertain the distribution of native varieties. For technical purposes, a preserved specimen is the only proof of the occurrence of a species in a particular area. For rare, or protected species, VHS is willing to accept a color 2" X 2"-photographic slide to "hold the space" after confirmation of identification and release of the specimen to its own area.

We hope that enthusiastic Virginian naturalists will want to contribute both living and preserved specimens with collecting data from new localities in the state. The specimens will be cared for at one of the following depositories:

Northeast: U.S. National Museum Smithsonian Institution, Washington, D.C.; Bridgewater College at Bridgewater; Randolph-Macon College at Ashland; Southeast: The College of William and Mary at Williamsburg; Norfolk Museum, Norfolk; Central: University of Virginia at Charlottesville; Southwest: VPI at Blacksburg; Carnegie Museum, Pittsburgh, Pa.

HERPETOFAUNA COLLECTED
IN CAROLINE COUNTY, VA.

by Mrs. Dale L. Brittle*

Little herpetofauna have been collected, preserved, and identified in Caroline County, Va.

Joseph T. Collins and a brother, Jerry, while stationed at Camp A.P. Hill, collected local herpetofauna for brief two-week periods during late June and in early July from 1963 to 1966 as noted in VHS-B# 48. Since 1966, no new information has been added to these records.

For the past two years, the writer has observed, collected, and preserved several species of reptiles and amphibians. In order to add to the list of county herpetofauna, a list of new records and some brief notations have been prepared.

"It is expected that about 38 kinds of snakes are native to the Commonwealth of Virginia" (VHS-B #37-38, 1964, page 1). Also, there are approximately 50 salamanders, 11 lizards, 27 frogs and toads, and probably about 25 species of turtles in Virginia (VHS-B #56, 1968).

Combining Collins' notes from 1963-1966 with the information on fauna collected or observed since then, a list was obtained as follows:

Observed and/or Preserved
(Caroline County, Va.)

15 snakes, 3 lizards, 5 turtles; 7 salamanders, 8 frogs & toads.

Amphibians: Salamanders

Seven salamanders have been identified. Collins recorded the Dusky (Desmognathus fuscus) Spotted (Ambystoma maculatum), Three-lined (Eurycea l. guttolineata), Newt (Notophthalmus v. viridescens), Red-backed (Plethodon c. cinereus) and an unidentifiable species of salamander which was badly mangled. " ... while it resembled ruber -- the Northern Red Salamander I did not attempt any identification. ... This would have been a county record if preserved." (VHS-B # 48, Collins, 1966). Also observed was the Greater Siren (Siren lacertina).

The writer observed the Red-backed, Dusky, Three-lined, and Newt. Preserved were the Spotted and Northern Red Salamander. Three Northern Red Salamanders were collected in various sections of the county. Two have been preserved; one collected November 11, 1968 is still living in a school terrarium. The Pseudotriton r. ruber becomes a county record.

Frogs and Toads

Collins observed and recorded these frogs and toads: American Toad (Bufo americanus), Gray Tree Frog (Hyla v. versicolor), Leopard Frog (Rana p. pipiens), Bullfrog (Rana catesbeiana), No. Cricket Frog (Acris c. crepitans), Spring Peeper (Hyla c.

CAROLINE COUNTY HERPETOFAUNA
(continued)

Frogs and Toads(cont'd)

crucifer), Eastern Narrowmouthed Frog (Gastrophryne c. carolinensis), and the No. Green frog (Rana clamitans melanota). None were preserved. Neither the American Toad, nor the Northern Cricket Frog observed by the writer were preserved.

Reptiles: Lizards

The Northern Fence Lizard (Sceloporus undulatus) was observed by both the writer and Collins. In the spring of 1968, a male and female Sceloporus u. hyacinthinus were brought into the classroom for study. Both were released after comparison and notes were made by the students (see list at end).

An Eastern Six-lined Racerunner (Cnemidophorus sexlineatus) was observed by Collins. A male was preserved by the writer. A student collected the specimen of Cnemidophorus November 2, 1968 in Corbin, Va., kept the lizard almost 3 months feeding it turtle food and flies. It died January 29, 1969.

The Five-lined Skink (Eumeces fasciatus) has been preserved by the writer. However, Eumeces sp. were ". . . infrequently observed on trees and on log(s). . . None were secured or specifically identified . . ." (VHS-B # 48, 1966, Collins, p.4)

Reptiles: Snakes

Between 1963 and 1966, Collins preserved the No. Water Snake (Natrix s. sipedon), the Queen Snake (Regina septemvittata), a Hognosed Snake (Heterodon p. platyrhinos), No. Ringneck S. (Diadophis punctatus edwardsi), Black Rat Snake (Elaphe o. obsoleta), and the Northern Copperhead (Agkistrodon c. mokeson). Observed were the Northern Red-bellied Snake (Storeria o. occipitomaculata), Eastern Garter Snake (Thamnophis s. sirtalis), E. Kingsnake (Lampropeltis g. getulus), and Rough Green Snake (Opheodrys aestivus). With the exception of Storeria occipitomaculata and Lampropeltis getulus, the writer observed and/or preserved the above mentioned snakes. There were 3 county records preserved: Eastern Worm Snake (Carphophis a. amoenus), the Mole Snake (Lampropeltis c. rhombomaculata), and the Northern Brown Snake (Storeria dekayi). The Eastern Milk Snake (Lampropeltis d. triangulum) and the Corn Snake (Elaphe g. guttata) were observed and on occasion were brought into the classroom for observation. All were released following study. If preserved, the E. Milk Snake and Corn Snake would have been two new county records.

(Continued on next page:)

CAROLINE COUNTY HERPETOFAUNA
(continued)

Reptiles: Turtles

A River Cooter (Pseudemys c. concinna) juvenile was collected in a barn on the Black Marsh Farm, Rappahannock Academy, Va., on January 25, 1969. According to Conant's Field Guide, River Cooters possess "dark plastral patterns which tend to follow seams between large scutes. All marginals have dark spots, usually in the form of two dark concentric circles.... It is indigenous to streams of the Piedmont and follows such to the Atlantic Coast."

Range has been indicated by Conant to be Central Virginia to Eastern Alabama. VHS-B #57, page 7, states it is "expected on the Coastal Plain." This is the first Pseudemys c. concinna specifically identified on the Coastal Plain and in the County.

A Florida Cooter (Pseudemys c. floridana) shell was collected in fall 1968 in the woods near Ruther Glen, Va. According to Conant (1958) p.56, the Coastal Plain Cooters possess a "light vertical line (or lines) on the second costal scute. Plastron is unmarked or only lightly patterned; dark markings are on the bridge and marginals fewer and less conspicuous than in the River species. This includes the Florida and Peninsula Cooters."

The shell collected possesses light vertical lines on the second scute and also on scute one, three, and four, although the dark patterning obscures the lines. The shell is 11½-inches long. Also, dark doughnut-shaped markings appear on the bridge and become less recogni-

zable on the anterior and posterior marginals. The plastron is unmarked.

On checking "Turtles of Va."- (VHS-B #57-58)- the Florida Cooter is the only species of the ... type ... found in Virginia. The collected shell is similar to the photograph of the Peninsula Cooter, page 95, Conant (1958) a species found only in Florida ... It's the writer's opinion that this shell is from the Florida Cooter (Pseudemys c. floridana).

Eastern Box Turtle (Terrapene c. carolina) hatchlings (3).. were collected on Orderly Farm, 5 miles south of Thornburg, Va., on April 20, 1968, in a plowed field. Conant states that the shell of young Terrapene is "mostly plain grayish brown, but with a spot of yellow on each large scute." (See VHS-B #57). Several shells of Terrapene c. carolina have been uncovered throughout the county 1967 to 1969. The writer has observed several living specimens during the spring and fall.

Besides the Box Turtle, Collins also observed the Red-bellied Turtle (Pseudemys rubriventris) and the Stinkpot (Sternotherus odoratus).

CAROLINE CO. RECORDS SINCE '66

Northern Red Salamander
Five-lined Skink (fasciatus)
Eastern Worm Snake
Mole Snake (Brown King Snake)
Northern Brown Snake
River Cooter and Fla. Cooter

CAROLINE COUNTY HERPETOFAUNA
(continued)

Acknowledgements:

Caroline (County) High School students contributed much to the completeness of this list. Without their assistance these re-

cords would not have been possible. Those listed below, and others who contributed information, assisted in collecting:

- | | | | |
|------------|------------------|---------------|------------|
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(March 10, 1969)

(Mrs.) Dale L. Brittle
Biology Teacher
Caroline High School
Bowling Green, Va. 22427

NEW MYTH ONLY GOOD FOR A SMILE

The latest tall tale about poisonous snakes needs to be labelled pure modern "folklore" and not to be taken seriously.

Mankind has enough troubles without inventing new ones. As a rule, snake stories are like fish stories but are usually longer and thinner! In brief, the new myth goes like this:

"Harmless blacksnakes mate with poisonous copperheads and the offspring are deadly poisonous blacksnakes." (Pure fiction!)

This is a nice rationale - for those who seek to justify the killing of useful harmless blacksnakes. However, the new story is on shakier ground --- biologically speaking --- than the old folktale about "pilot"

blacksnakes leading rattlers to and from a den in fall and early spring. Also, it's on collision course with another older myth that says: "where you find blacksnakes you'll never have any poisonous copperheads!"

American blacksnakes, or other nonpoisonous snakes, and pit-vipers may share the same dens but they would not attempt to mate. Virginian blacksnakes - Black Rat Snake, Black Racer, and the Black Kingsnake (SW) -- all lay eggs. The copperhead is a pit-viper. Vipers, with or without pits, are, as the term derived from the Latin -vipera, live-bearing -denotes are born alive.

Melanism in copperheads isn't
unknown but it is extremely rare

LETTERS, COMMENTS, & IDEAS:

(The aim of this feature is to open a column for VHS members and readers who want to discuss any aspects of Va. herpetology.)

Contributions to this section will be governed by a few simple rules. Contributions:

will not embarrass contributor; will be briefed by VHS editor; VHS will not knowingly publish any misleading statements. In addition to letters and ideas from VHS-B readers, this column will carry items selected for their interest to VHS members.

Letters to VHS should be written for use in this column....

To VHS: Recently, I found the (enclosed) snake skin on a road just outside Middleburg, Va. I believe it to be a young Milk Snake, but the coloring is very strange. Can you tell me what it is? Thank you, T.F. Hentz Box 802, Middleburg, Va. 22117.

To T.F.H. at Middleburg, Va.

Thanks for the DOR (dead on road) specimen. You were very alert to recognize the strange coloration - (almost orange-red). I do not believe it is a Milk Snake. When I first looked at it I thought (as you did) that it might fit into the Virginia "Red Milk Snake" series which apparently occurs on the Piedmont. Then I tried to explain the color.

This may be a juvenile Black Racer. As you will note, they do occur in very reddish color phases (Conant, 1958). Scales

right for the Black Racer. It seems that the black pigment, though little is normally present in juveniles, is absent in this specimen.

PLEASE DO SAVE, PRESERVE, and ASK QUESTIONS or ASSISTANCE in identifying any strange thing you see. VHS will get help, as needed, to solve real riddles. I hope my lateness in replying will not discourage you from .. sending such specimens for identification. FJT, (Sec'y)

(Two follow-up letters from TH)

To T.F.H. Middleburg, Va.

On closer look: The complete snake is there, pressed, and dried, except for a few inches of its tail. The body is cut in half (by a roadside mowing operation?) There are twenty saddle blotches from head to tail. Blotch on top of snake's head is in right position for juvenile Black Racer (Coluber). Specimen is from Loudoun Co., Va. (F.J.T., Secretary, VHS.)

To VHS:

"The Bulletin on "Turtles of Virginia" was great!"

R. Eugene Ramsey, Teacher
Stuart's Draft, Va. 24477

To VHS:

The VHS Medical Adviser, R.L. Guillaudeu, MD, McLean, Va., enclosed two reprints on snake-bite treatment: "Treatment of Copperhead Bites" from Vol. XXIV Proc. of Children's Hospital; and "Problems in the Management of Rattlesnake Bites" Vol. 98,

VHS LETTERS, COMMENTS, cont'dTo VHS:

I really have enjoyed using the two special issues of the VHS Bulletin. The issues on Virginia's snakes and turtles have been helpful in class. I have only one issue of "VHS-B" which discusses tye amphibians and reptiles of Caroline County (VHS-B #48). Are there others ?

Several Caroline County biology students are interested in collecting specimens from the area. It is hoped that we will be able to include some new species for the county in the near future. (See feature pages 3-6).

(Mrs.) Dale L. Brittle, Biology Teacher, Caroline High School, Bowling Green, Va. 22427

To VHS:

I am writing for the purpose of making an application for VHS membership. . . . I am presently on active duty in the Naval Reserve (LTJG) and I am stationed at Yorktown, Va. I graduated from Texas Lutheran College, Séguin, Tex., in Jan. 1967, with a BS in biology. I took a special problems course my last semester in college. It entailed collecting snakes, lizards, and amphibians and making identifications down to the subspecies level. The work was tedious and long, but I developed a real love for studying reptiles and amphibians. (cont'd)

On Saturdays, I work at the Peninsula Junior Nature Museum, Newport News, Va. The museum has a small collection of reptiles, and I am now in the process of starting an amphibian collection for the museum. I am particularly interested in salamanders. I would like to prepare a paper with notes on the various salamanders which I have found and which I expect to find in the Newport News area.

(LTJG) Glen A. Engeling, USNR
Skiffes Creek Annex, Box 42,
Naval Weapons Station,
Yorktown, Va. 23490

To VHS:

In October, 1968, a group of 21 people, mostly college and high school students, met and organized the TENNESSEE HERPETOLOGICAL SOCIETY. THS Bulletin No. 1 was issued shortly after.

An exchange of bulletins is to be made between the THS and VHS.

It was decided to extend the range and scope of the Society beyond the Nashville area to encompass the entire state of Tennessee. Belmont College, Nashville, was chosen as THS headquarters for 1968-1969.

Dr. Glenn Gentry, Senior Advisor
2816 Colonial Circle, Donelson,
Tennessee 37214

GREETINGS! TENNESSEE HERPETOLOGICAL SOCIETY (THS)! from VHS.

HELP ON SHENANDOAH NATIONAL
PARK - BLUE RIDGE PROJECT

Work has been proceeding for many years on the herpetology of Shenandoah National Park and the Blue Ridge Parkway. There is an urgent need for live specimens for use in preparing illustrations for the projected publication. Some of the specimens cannot be found easily within the Park. The Park Service and the author are using specimens from outside the SNP and BRP collected by VHS members. An NPS photographer will take black and white and color photographs of the specimens. WILL YOU HELP?

A collector may request that the specimens he provides be returned. However, the Park Service would be most pleased if the specimens used in the photographs could become part of the SNP preserved collection which is used in training seasonal naturalists. The more complete it is, the better the training it supports.

An author's copy of the finished SNP publication will go to those collectors whose material is used. VHS members who wish to help in the project should write:

Mr. William L. Witt
1412 Patrick Henry Dr.
Arlington, Va. 22205

(As VHS members know, collecting in the National Parks without an official permit is expressly forbidden. Rather steep fines are imposed on violators.)

Specimens in good condition, and

well-marked specimens (whether juveniles or adults) are wanted to show what the animals look like. Some species are wanted from within particular regions of the state; others may be from anywhere -- within the normal species' range - in or out of Virginia. This is important to assure accuracy.

W A N T E D :

MARbled SALAMANDER (adult) any.
ALLEGHANY MOUNTAIN SALAMANDER
Six adults and two juveniles
from North of James River.
RED-SPOTTED NEWT any adult; eft.
LONG-TAILED SALAMANDER Sharp,
clear pattern with no chin-
spotting, from West of Ridge.
NORTHERN SPRING SALAMANDER
Both salmon and purple phases
from north of the Roanoke/New
Rivers.
FOUR-TOED SALAMANDER any.
SIX-LINED RACERUNNER any.
GROUND SKINK any.
EASTERN HOGNOSED SNAKE All
phases: black, olive, blotched.
MOLE SNAKE hatchling, a
subadult and adult needed.
QUEEN SNAKE young adult show-
ing dark stripes on back.
RED-BELLIED SNAKE Sandy, blue
gray and brownish phases; any.
SOUTHEASTERN CROWNED SNAKE
from North of James River or
from Blue Ridge itself.
EASTERN RIBBON SNAKE A bright-
ly patterned adult.
EASTERN SMOOTH GROUND SNAKE
any adult.

COLLECTING NOTE, DICKENSON CO.

EASTERN HOGNOSED SNAKE
 Collected at Clintwood,
 20 and 30 April 1968, by
 Div. of Reptiles and Am-
 by Kenneth Potter on
 Cause of death unknown.

Based on communication from:

(Heterodon platyrhinos)
 Dickenson County, Va., between
 John Nerenberg. Given to the
 phibians, U.S. National Museum
 29 Nov. 1968. Died 31 Jan. 1969
 Preserved: USNM 166442.

Robert G. Tuck, Jr. USNM
 Museum Technician

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