
 HERPETOLOGICAL SPECIMENS
 COLLECTED IN LEE COUNTY,
 VIRGINIA: (II) REPTILES

LEE County, Va., and the Cumberland Gap National Historical Park is an area of great zoogeographic interest. The area is drained by tributaries of the Tennessee River and has some animals that are found in no other portion of Virginia.

A total of 261 specimens was collected. They included 19 kinds of amphibians (part one) and 18 kinds of reptiles. The reptilian forms collected are the subject of this second part of the survey. These include six turtles, two lizards, and nine snakes. Additional forms are expected. A list will appear at the end of this article (pp. 6-7).

Of particular interest in this first collection are the following:

Found in Virginia for the first time were:

- (1) Stripe-necked musk turtle
- (2) Midland wormsnake
- (3) Black king snake, and
- (4) Midland watersnake.

by Dr. W. Leslie Burger*
 VaHS Co-founder and
 Past President

 Found in western Virginia
 for the first time, was:

The map turtle.

These species and subspecies, apparently, are all characteristic members of the herpetofauna of the upper Tennessee River valley, as is the eastern spiny softshell turtle.

Where Rt. 654 crosses the Powell River, 2 miles S of Jonesville, the locality is known as Hurricane Ford. Here were collected an eastern spiny softshell turtle, 3 common snapping turtles, a young map turtle, a box turtle, a stripe-necked musk turtle, a five-lined skink, a northern fence lizard, two midland water snakes, and a rough green snake.

At Mill Hollow, on the NW outskirts of Jonesville, LEE County, Va., were found a northern fence lizard, a northern ring-neck snake, and a black rat snake.

At Nash's Mill near the intersection of Rt. 692 and Indian Creek, 5½ mi. E of Cumberland Gap, were found two eastern spiny softshell turtles, two common snapping turtles, and a midland watersnake.

At Cave Shoals on the Powell River, 5½ miles SE of the community of Rose Hill, the following were collected: four eastern spiny softshell turtles, a stripe-necked musk turtle (skeleton saved), an eastern box turtle, two midland watersnakes, and a rough green snake.

In a pool on Blackwater Creek beneath the Rabinette Memorial Bridge, 5½ miles SE of Jonesville, a stinkpot (common musk turtle), an eastern box turtle, two northern queen snakes and three midland watersnakes were collected.

At Hunter Gap on Powell Mountain, 4½ miles SSE of Jonesville, Va., above the small settlement at Blackwater, two eastern milk snakes were taken.

Dr. Burger's report is
continued on page two.

REPTILES OF LEE COUNTY, VA
(continued from page one)

On the southeastern slope of Wallen Ridge near Rt. 654, 3 miles S of Jonesville, a specimen of the worm snake was collected which is apparently an intergrade between the eastern and midland subspecies.

A half-mile E of Station Creek on U.S. #58, 3 mi. E of Cumberland Gap, a DOR⁺ of the black kingsnake was collected. Only the skin of the specimen was saved. (A live specimen was captured in Kentucky, 1 mile E of Middlesboro, and not two miles from the Virginia line.) VaHS members and friends in the area should be on the watch for DOR specimens in good condition, or for live specimens that may be photographed and released. (Records are badly needed.)

Willis Hollow and Willis Hollow Cave, a locality 1 1/2 miles NE of Cumberland Gap, was the collecting site for these: 3 eastern box turtles, a northern fence lizard, a timber rattlesnake, a northern ringneck snake, and two black rat snakes.

+ D.O.R. = Dead on the road.

This concludes the Burger report on the 9-18 July 1958 survey of LEE County and portions of the CUMBERLAND GAP NATIONAL HISTORICAL PARK. Part one, amphibians, appeared in VaHS BULLETIN #75, dated August-September 1974, but mailed in March 1975. FT

VaHS CERTIFICATE AWARDED
AT NORTH VA. SCIENCE FAIR

Under a program launched a decade ago, a special certificate and VaHS membership for 1974-1975 was awarded to:

Ms. Kim Pedersen
728 N. Cleveland St.
Arlington, Va. 22201

The award, made by Dr. P. H. Knipling, Treasurer of VaHS, Arlington County Science Supervisor, was made for a seventh grade exhibit on the chameleon (Anolis carolinensis).

CORRECTION

In the account of the VaHS meeting at Old Dominion University last April, we inadvertently neglected to list a long-time Portsmouth VaHS member, Dennis R. Hollowell, as being present. Our apologies!

DATE NOW SET FOR NEXT
ESHL MEETING - NEW HAVEN

The next meeting of the Eastern Seaboard Herpetological League (ESHL) has been set for Saturday, 22 March 1975 at the Peabody Museum, New Haven, Conn.

Registration will start at 11 a.m. The program is expected to last until 8.

Arrangements are in care of Walter W. Timmerman, Jr
1 Old Nod Road
Clinton, Conn. 06413

Mr. Timmerman is president of Connecticut Herpetological Society (CtHS)...

CAREERS IN
BIOLOGICAL SYSTEMATICS

The Society of Systematic Zoology has just published a 16-page illustrated brochure for persons who are considering a career in animal or plant systematics. The field of systematics is described, together with examples of current research; other sections of the booklet deal with employment, training, and recommended readings. Single copies are available free by writing SSZ, c/o Department of Entomology, U.S. National Museum of Natural History, Smithsonian Institution, Washington, D.C. 20560

 LIST OF ENDANGERED VA.
 REPTILES AND AMPHIBIANS

Four amphibians and five reptiles have been listed as endangered in a late 1973 study by Mr. Wayne R. Russ entitled: "The Rare and Endangered Terrestrial Vertebrates of Virginia." It was submitted to the graduate faculty of VPI & SU, Blacksburg, VA., in partial fulfillment of the requirements for a degree of Master of Science in Wildlife Management.

Listed as endangered, in Virginia only, are:

Reptiles:

Wood turtle
 (Clemmys insculpta)
 Northern pine snake
 (Pituophis melanoleucus)
 Scarlet king snake
 (Iampropeltis triangulum elapsoides)
 Canebrake rattlesnake
 (Crotalus h. atricaudatus)

Amphibians:

Mudpuppy
 (Necturus m. maculosus)
 Dwarf waterdog
 (Necturus p. punctatus)
 Greater siren
 (Siren lacertina)
 Carpenter frog
 (Rana virgatipes)

Endangered throughout its range is the bog turtle, (Clemmys muhlenbergi). A feature article on these (continued, top center col.)

small turtles appeared in the June 1974 issue of VIRGINIA WILDLIFE. Author of the article is Mr. Ken T. Nemuras of Pasadena, Maryland. Ken has extended the range of the bog turtle in Virginia from FLOYD County southwestward into GRAYSON and CARROLL counties.

The Russ thesis was given approval by Dr. Burd S. *McGinnes, Patrick Scanlon, R.L. Kirkpatrick, and Dr. Richard L. *Hoffman. (*VaHS)

VaHS PURPOSE:

VaHS has little meaning unless its objectives remain fixed to Virginian herpetology. The frontier is there, the unknowns are present. There is more than the necessary challenge and opportunity to make a real contribution to knowledge.

We exclude the foreign or exotic species of reptilian or amphibian life. At least three national societies, and dozens of smaller groups give space to tropical and semi-tropical herpetofauna. We are the only ones covering Virginia - statewide.

SUPPORT VaHS in 1975!

 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 active 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

LETTERS, IDEAS, COMMENTS:

The following is a recent exchange of correspondence on the red-bellied water snake in the vicinity of Alexandria, Va. FJT
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To: Mr. Tom Boo
Alexandria, Va.

Dear Tom:

The editor of VIRGINIA WILDLIFE magazine has sent me a copy of your letter about the possible occurrence of the red-bellied watersnake (Natrix erythrogaster) in the vicinity of Alexandria.

While I'm sorry to bring you 'bad news' of a sort, I don't think it's really that bad. You may be pleased to know that your powers of observation are pretty keen and that you are alert to the unusual in nature. Actually, ... reports of 'red-bellied' watersnakes in the Potomac River (from Seneca, Md., to Mount Vernon) have been coming in over the years. It was only 5 or 6 years ago that Sergeant Simon Campden-Maine, who was on loan from Walter Reed Army Medical Center to the Smithsonian's Div. of Reptiles & Amphibians while preparing a guide to "Snakes of Vietnam," brought in a few examples of these weirdly-colored watersnakes from Possum Point, below Alexandria.

He shared them with the herpetologists at the US National Museum of Natural History, DRA, and sent a specimen to Dr. Roger Conant, author of the Field Guide (Peterson) for confirmation of identification.

Smithsonian agreed with Dr. Conant that these so-called red-bellied watersnakes were highly aberrant (unusual or abnormal) northern watersnakes (N. sipedon sipedon). There is a sizable range of color exhibited by the N. water snake. ... It is my hope that you will keep the specimen (you have) alive and in good condition, and that you may arrange by phone to take it to the Smithsonian to show it to Dr. George R. Zug at the Div. of Reptiles and Amphibians. ... Sincerely,

F. J. Tobey, VaHS

(Subsequently, Mr. Tom Boo took the specimen to Dr. Zug and sent slides to Dr. Conant. Dr. Conant's reply is carried here for the benefit of all VaHS.)

Albuquerque, N.M.

Mr. Tom Boo
Alexandria, Va.

Dear Mr. Boo:

Thank you for sending me the color slides of the snake you found in Holmes Run, Alexandria, Va. last

June. I can confirm the fact that it is Natrix erythrogaster erythrogaster, the red-bellied water snake.

There are several things about the specimen, however, that led me to believe that it probably had been held in captivity for some length of time. First, there is the necrotic condition of the eye, and second, one of the close-up photographs clearly indicates the desiccated and deformed condition of some of the belly scales. Both of these conditions frequently develop in captivity when water snakes are maintained under improper conditions for long periods of time. Decades ago, we made studies at the Philadelphia Zoo, where I served for so many years, in order to determine how best to keep Natrix in captivity. We attempted a variety of experiments, and conditions similar to those that appear on your snake could be readily induced if the animal was inhibited in any way from having a normal skin-shedding procedure -- especially during the period of preparation for ecdysis (shedding).

I assume from your apparent experience in caring for snakes that this condition did not develop while the specimen was in your possession. There

from page four:

is another point that might be considered even though I am well aware that Kodachromes are not always completely accurate in color rendition, even though the exposures may have been correct. The colors of your erythrogastrer strongly remind me of specimens I have had alive from northern Florida. It does not show the richer reds and browns that are prevalent in localities farther north, and which might be expected in any outlying localities from Virginia.

In summary, I can confirm your identification, but the locality is strongly suspect. My guess is that the snake in question either escaped from captivity or that it was liberated near where you found it.

May I strongly urge you to make a thorough search this spring in an effort to find additional specimens. Unless you can demonstrate that there is a colony of Natrix erythrogastrer extant in the area, I do not think we should alter our range maps. The red-bellied water snake is essentially a species of big river swamps throughout much of its range, and I would

LETTERS, IDEAS, continued

view its natural presence in an isolated run, far from its normal range, as highly unlikely. Perhaps you will be able to prove I am wrong.

Sincerely,

(Dr.) /s/ Roger Conant
Adjunct Professor
of Biology
University of New
Mexico, Albuquerque,
87131

"... We now have a hell-bender (Cryptobranchus a. alleganiensis) in the Lynchburg College (biology dept.) collection. The datum: 25 meters North of Rt. #679 in FLOYD Co., 200 meters below Little River Dam in the New River drainage.

(Prof.) Shirley Whitt
Lynchburg College
Lynchburg, Va. 24501

"... One of my projects ... is to store and catalog this collection (at Clinch Valley College), and to get a list of the specimens, as well as some of my other observations, to the VaHS. I expect there are several county records included.

(Dr.) /s/ Philip C. Shelton
Clinch Valley College
Wise, Va. 24293

DEPOSITORY RECORDS:

Virginian reptiles and amphibians in the Arizona State University collection are as follows:

Alleghany Mountain Salamanders (Desmognathus o. ochrophaeus) from Hunters Branch of Stony Creek, near Mountain Lake Biological Station, GILES County, Va. These were collected 20 August 1935 by Neil D. Richmond. #2848

Black-bellied salamander (Desmognathus quadramaculatus) same data and locality, GILES County, Va. #09259 to #09263

Rainbow snake (Farancia erythrogramma) Moysenek Farm, 1 mile SE Ianexa, NEW KENT County, Va. Collected 23 October 1965 by Neil D. Richmond. #11508

Eastern spadefoot (Scaphiopus h. holbrookii) 1 mile SE of Ianexa, NEW KENT Co. Va. N.D. Richmond. #11511 and #11512

Eastern earth snake (Virginia v. valeriae) 1 mi. SE of Ianexa, NEW KENT Co. Va. N.D. Richmond. #14346

Note: Specimens numbered 11508 and 11511-12 were donated by the Carnegie Museum, Pittsburgh, Pa.

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

AMPHIBIANS OF LEE CO., VA.Salamanders

Jefferson	<u>Ambystoma jeffersonianum</u>
Spotted	<u>Ambystoma maculatum</u>
Green	<u>Aneides aeneus</u>
Hellbender	<u>Cryptobranchus alleganiensis</u>
Northern Dusky	<u>Desmognathus f. fuscus</u>
Appalachian Seal	<u>Desmognathus m. monticola</u>
Allegheny Mountain	<u>Desmognathus o. ochrophaeus</u>
Black-bellied	<u>Desmognathus quadramaculatus</u>
Northern Two-lined	<u>Eurycea b. bislineata</u>
Long-tailed	<u>Eurycea l. longicauda</u>
Cave	<u>Eurycea lucifuga</u>
Blue Ridge Spring	<u>Gyrinophilus p. danieli</u>
Northern Spring	<u>Gyrinophilus p. porphyriticus</u>
Mudpuppy	<u>Necturus m. maculosus</u>
Red-spotted Newt	<u>Notopthalmus v. viridescens</u>
Red-backed	<u>Plethodon c. cinereus</u>
Slimy	<u>Plethodon g. glutinosus</u>
Southern Ravine	<u>Plethodon richmondi popei</u>
Midland Mud	<u>Plethodon montanus diastictus</u>
Northern Red	<u>Pseudotriton ruber ruber</u>

Frogs and Toads

Northern Cricket Frog	<u>Acris c. crepitans</u>
American Toad	<u>Bufo terrestris americanus</u>
Fowler's Toad	<u>Bufo woodhousei fowleri</u>
Eastern Narrow-mouthed Frog	<u>Gastrophryne c. carolinensis</u>
Northern Spring Peeper	<u>Hyla c. crucifer</u>
Eastern Gray Treefrog	<u>Hyla v. versicolor</u>
Mountain Chorus Frog	<u>Pseudacris brachyphona</u>
Upland Chorus Frog	<u>Pseudacris triseriata feriarum</u>
Bullfrog	<u>Rana catesbeiana</u>
Northern Green Frog	<u>Rana clamitans melanota</u>
Pickereil Frog	<u>Rana p. palustris</u>
Northern Leopard Frog	<u>Rana pipiens pipiens</u>
Wood Frog	<u>Rana sylvatica</u>
Eastern Spadefoot	<u>Scaphiopus holbrookii holbrookii</u>

REPTILES OF LEE COUNTY, VA.Turtles

Common Snapping	<u>Chelydra s. serpentina</u>
Midland Painted	<u>Chrysemys picta marginata</u>
Wood Turtle	<u>Clemmys insculpta</u>
Bog Turtle	<u>Clemmys muhlenbergi</u>
Map Turtle	<u>Malaclemys geographica</u>
Eastern Mud Turtle	<u>Kinosternon s. subrubrum</u>
Stripe-necked Musk	<u>Sternotherus minor peltifer</u>
Eastern Box Turtle	<u>Terrepene carolina carolina</u>
Eastern Spiny Softshell	<u>Trionyx spinifer spinifer</u>

Lizards

Six-lined Racerunner	<u>Cnemidophorus sexlineatus sexlineatus</u>
Northern Coal Skink	<u>Eumeces anthracinus anthracinus</u>
Five-lined Skink	<u>Eumeces fasciatus</u>
Northern Fence Lizard	<u>Sceloporus undulatus hyacinthinus</u>

Snakes

Northern Copperhead	<u>Agkistrodon contortrix mokeson</u>
Worm Snake (intergrade population)	<u>Carphophis amoenus amoenus X helenae</u>
Timber Rattlesnake	<u>Crotalus horridus horridus</u>
Northern Ringneck Snake	<u>Diadophis punctatus edwardsi</u>
Black Rat Snake	<u>Elaphe obsoleta obsoleta</u>
Eastern Hognosed Snake	<u>Heterodon platyrhinos platyrhinos</u>
Eastern Milk Snake	<u>Lampropeltis triangulum triangulum</u>
Black King Snake	<u>Lampropeltis getulus niger</u>
Midland Water Snake	<u>Natrix sipedon pleuralis</u>
Rough Green Snake	<u>Opheodrys aestivus</u>
Eastern Smooth Green	<u>Opheodrys vernalis vernalis</u>
Northern Pine Snake	<u>Pituophis melanoleucus melanoleucus</u>
Queen Snake	<u>Regina septemvittata</u>
Northern Brown Snake	<u>Storeria dekayi dekayi</u>
Northern Red-bellied	<u>Storeria o. occipitomaculata</u>
Crowned Snake	<u>Tantilla coronata</u>
Eastern Ribbon Snake	<u>Thamnophis sauritus sauritus</u>
Eastern Garter Snake	<u>Thamnophis sirtalis sirtalis</u>
Mountain Earth Snake	<u>Virginia valeriae pulchra</u>

Those forms not actually found or collected during Dr. Burger's survey are nonetheless expected to occur in LEE County, Virginia or vicinity.



Tom Boo (1974) with *Nerodia erythrogaster* captured in Alexandria, Virginia. Since there have been no subsequent reports of this species in Northern Virginia this discovery is considered a liberated or escaped captive. (photo added 07/26/2020)