### BULLETIN NUMBER 28

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# VIRGINIA HERPETOLOGICAL SOCIETY

# "SNAKES-WITH-LEGS" IN VIRGINIA ?

As a foreword to the excerpts from letters and newsitems below we will say only "if you don't recognize it -- preserve it!"

"The snake-like 'thing' was approximately 18 inches long, about 1 inch in diameter. With body marking somewhat like the Bullsnake or copperhead. About 5 or 6 inches from its head there was a leg on either side about 5 inches long. Something like a frog or a salamander's leg. Then about two and one half to three inches from the tip of its tail there was a claw on each side. This claw had no leg attaching but joined right to the body. The claw at the tail was smaller than the front claws. On the bottom or belly there were the regular scales or scutes that snakes use to crawl. This snake wasn't put in alcohol so it could be kept that others might see it. It was killed by a car on a dirt road in Madison County the week of October 29 -November 4, 1961."

(A Correspondent in Charlottesville, Va.)

"Life in the Country" by James Birchfield: "Dink Bishop, over the way, killed a snake in his side yard not long ago. He started to carry it away when he noticed it had legs. Dink said no one would believe such a story, so he put the snake in alcohol just to prove to his neighbors that he hadn't been in that condition when he killed this snake. The neighbors came in, looked and went away again shaking their heads. For whoever in the world ever heard of such a thing ? I called up the Smithsonian Institution, and they had an explanation. Then I looked at the snake and it didn't seem to me that the explanation fitted. So just as soon as I can remember to go over and get this creature I'm going to bring it to the snake experts. Crawling snakes are bad enough! We don't want any with legs. We don't want any running snakes in good old Loudoun County (Va.). But if this one does turn out to be a new species, I think it should be called the "Bishop."

> from: THE SUNDAY STAR (Washington, D.C.) Sunday, September 15, 1957 page E-7

Snakes caught in the act of eating a frog head-first as is normal may appear, superficially, to have "legs" protruding from either side of the head. Also, snakes crushed by a car or truck tire, with undigested limbed vertebrates within the digestive tract may look as though the snake was equipped with limbs. Meither explanation will completely satisfy the descriptions provided above. Normally, a snake caught in the act of eating will disgorge its food in an effort to escape capture. We hope "Dink" Bishop, or Mr. James Birchfield has preserved the specimen in alcohol. It should be in the U.S. National Museum collection. Weird snake stories we have in profusion; we can use preserved specimens of legged reptiles - lizards or otherwise - to establish just what it is people are seeing in the Piedmont counties.

The VHS BULLETIN is a newsletter appearing at least six times a year. It is the only official means of communication between members and friends of the VIRGINIA HERPETOLOGICAL SOCIETY, a non-profit association of persons with a more-than-casual interest in the lower, land-based vertebrates of VIRGINIA and adjacent states. Dues are \$1.00 per year; includes bulletins, membership card and free notices in the VHS bulletin. (over)

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In VHS Bulletin No. 27 the Legless Lizards or "Glass Snakes" were discussed. It is, perhaps, only fitting that some attention should be given to two-footed lizards. These occur in both the Old World and in the New World. Range of Bipes is apparently not fully defined in the Western United States and Mexico. THE REPTILE BOOK, Raymond L.Ditmars has an excellent photograph of the "Two-footed Worm Lizard" <u>Bipes</u> caniculatus. The text describes members of the Euchirotidae and Amphisbaenidae. A FIELD GUIDE TO REPTILES AND AMPHIBIANS, Roger Conant shows an illustration of a legless amphisbaenid at page 111; text, 108.

Some confusion may exist in the popular mind between these lizards and the Sirens or Amphiumas. These are illustrated at page 266, text pages 202;205. The Amphiuma and Siren are not known to occur away from the Tidewater or coastal areas of Virginia or Maryland, see page 338.

Readers developing further facts relating to the above (VHS Bulletin No. 28, pages 1-2) are invited to submit their findings to the editor.

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RECORDS: A short explanation is in order relative to our use of the term "county record." VHS Bulletin comments on "county records" are based on a set of distribution maps maintained by William L. Witt, Arlington, Va., since 1950. The data posted on the maps are based on Virginia specimens in the major public collections and a few permanent smaller ones. Much of this data remains unpublished. Unpublished data are held in confidence unless released by those holding the collection. Records referred to in articles prepared by Mr. Witt with the exception of <u>Plethodon</u> records (which go to Dr. R. Highton, University of Maryland) are in the U.S. National Museum and, therefore, available. Records are based on preserved specimens, <u>always</u>.

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#### ARE THERE TWO CORN SNAKES IN VIRGINIA ? (COLOR PHASES)

What are the colors of the Corn Snakes where you are ? There is a red and orange phase familiar to those in the mountains and Piedmont around Warrenton, Va., and a gray phase taken twice at Smith Mountain, Pittsylvania County, Va., and in the southern Piedmont to the Carolina line.

Please advise VHS (c/o Wm. L. Witt, Apt.121, 1412 Patrick Henry Dr Arlington 5, Va.) concerning the background color of the Corn Snakes (Elaphe g. guttata) and whether or not you have any preserved and if you would be willing to deposit them in the collection of the National Museum (Smithsonian Institution) Washington, D.C.

We need preserved material with complete collecting data including locality (use Geological Survey maps if possible), date, collector, and notes concerning activity of the specimen and description of the locale etc. Whether you have an actual specimen or not, write about Corn Snakes in your locality. Distribution of the species is uncertain.

Dr. Herndon G. Dowling, NYZP, has asked us for data on this snake from Virginia for a study now underway. Hold on to live specimens DO NOT SEND ANY MATERIAL UNTIL DIRECTIONS ARE PROVIDED. WLW

OFFICERS OF THE VIRGINIA HERPETOLOGICAL SOCIETY

Medical Adviser . . John Thornton Wood, M.D. (Pres. VHS, '58-'60) Data on Distribution of Species: William L. Witt, Arlington, Va.

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Correspondence

should be addressed to the Secretary at: Checks or money orders for dues should be sent to Treasurer at: 2623 Military Rd., Arlington, Virginia

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# PROBLEMS IN VIRGINIAN HERPETOLOGY (I) by William L. Witt, Co-founder, Virginia Herpetological Society

More than twenty-five years ago it was remarked that the Leopard Frog (<u>Rana pipiens</u>) and the Pickerel Frog (<u>Rana palustris</u>) share an interesting condition. The Pickerel Frog appears to be in the greatest possible number of habitats in the mountainous portions of the state but fades into fewer and fewer habitats as one progresses into the Piedmont and finally the Coastal Plain where it may be uncommon.

The opposite condition prevails with the Leopard Frog, which is most common on the Coastal Plain but becomes uncommon on the Piedmont and rare, in number of localities, in the mountains. In the Piedmont the two species are in about equal numbers and localities. A big question is: What sort of habitat does the Leopard Frog (<u>R. pipiens</u>) choose in the central and western Piedmont ? Another is: Are there similar habitats available in the mountains ?

This is a problem that VHS members who live or collect on a northsouth line along U.S. Route # 29 can help solve. Leopard Frog DORs have been seen at Leon, west of Culpeper, and near Herndon, but not elsewhere on the middle Piedmont.

Members and friends are asked to make observations and gather any specimens of Rana pipiens from the Piedmont, particularly west of US Route 29. In addition, be sure to note if R. palustris occurs in the same pond, marsh, or swamp that you find  $\underline{R}$ . pipiens.

Universities and individuals maintaining collections are asked to check their material for pipiens from the Virginia Piedmont and, if at all possible, forward the data to W.L. Witt, Apt. 121,1412 Patrick Henry Drive, Arlington, Va. Sources are kept in confidence and are not published or identified as to collection. The U.S. National Museum (Smithsonian Institution) is happy to receive herpetological material.

(II)

There are three major physiographical regions in Virginia, namely, Coastal Plain, Piedmont and mountains. The latter is divided into several subdivisions, such as the valley and ridge (Shenandoah Valley and Blue Ridge) and the Allegheny Mountains. In some way, not well understood these natural barriers limit the distribution of some species of amphibians and reptiles, but not others.

Living conditions vary from one such geographic province to another, and, of course, within each province.

(continued on next page)

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 (detach)
 (detach)

 type or hand letter(ink)
 (spell out month)

 Collector's name
 Date

 County where found
 Date

 Nearest road intersection:
 State (county) #\_\_\_\_\_ and State (Co.)#\_\_\_\_\_

 Direction from intersection to site
 Distance:

 Weather and time of day or night
 A.M. P.M.

 Description of collection site:
 A.M. P.M.

Activity of specimen at time of capture: Specimen attached: Fluid preservative used: Name of post office nearest collection site: Identification:

# (II) Problems in Virginian Herpetology (continued from page 3)

The Red-bellied Water Snake (<u>Natrix e. erythrogaster</u>) is found in Virginia along the edge of the Coastal Plain, in Accomac and Northampton Counties, but ranges somewhat more inland south of the James River and westward from the Dismal Swamp.

Another water snake, <u>Natrix septemvittata</u>, the Queen Snake, occurs only in the mountains and on the Piedmont of Virginia. Here we can see two different water snakes that find the fall line (the boundary between the Coastal Plain and the Piedmont) a barrier. Or they may find the Coastal Plain inhospitable. There are many more subtle reasons, too, related to the physical changes brought by mov-ing from one physiographical province to another.

The Banded Watersnake (Natrix s. sipedon) ranges through all provinces from near brackish water to the mountain tops. It has adapted itself to more of the varied habitats than any other water snake in the state.

In forthcoming articles in this series additional distribution puzzles where these physiographic regions play a role will be cited.

William L. Witt, VHS

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SNAKES EXPECTED ON THE EASTERN SHORE (ACCOMAC & NORTHAMPTON COUNTIES)

1. 2. 3. \* indicates Red-bellied Snake (Storeria occipitomaculata) actual record Northern Brown S. (<u>"dekayi</u>)
 \*Smooth Earth Snake (<u>Haldea valeriae</u>)
 \*Hog-nosed Snake (<u>Heterodon platyrhinos</u>) for one of the eastern shore counties of Va. 7. Worm Snake (Carphophis amoenus) 8. \*Rough Green Snake (Opheodrys aestivus) 9. \*Black Racer (Coluber c. constrictor) (Elaphe g. guttata) 10. Corn Snake Black Rat S. (<u>"o. obsoleta</u>) Scarlet Snake (<u>Cemophora c. coccinea</u>) 11. 12.

\*Copperhead (Agkistrodon contortrix mokeson) -- (poisonous) 13.

14. "Eastern King Snake (Lampropeltis g. getulus) 15. "Coastal Plain Milk Snake (\_\_\_\_\_\_ doliata temporalis)

Comments and documentation on additional Eastern Shore (Va.) counties records will be greatly appreciated. William L. Witt.

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(VHS MEMBERS) THREE - RING BINDER RECOMMENDED FOR BULLETINS

Members have asked the editors to go over to a normal 8 inch by 10 inch typewriter sheet for convenience in filing the bulletin.

The material on the last quarter of these legal-size pages is always detachable. Cut off the bottoms of all of the bulletin pages; use a three-hole punch for the sides; and store in a 3ring binder.

VHS editors will use the bottoms of these pages to provide detachable membership application blanks, ads, collection data cards and local meeting memos. (See other side of this stub).

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# NOTES ON MARYLAND HERPETOLOGY

VHS (Md. Section)

The Tiger Salamander (Ambystoma t. tigrinum) and "A Spring Research Project" in VHS Bulletin # 27 brought a quick response from a friend in Baltimore, Md. Dr. Charles J. Stine, Dr. R. S. Simmons and John Gillespie have embarked on an extensive tagging-life history study of the Tiger. This team has over eight years field experience with the Tiger Salamander. Dr. Stine provides a few pointers which may aid the search for tigrinum in Virginia.

- 1. The species breeds on the Maryland Coastal Plain (DelMarVa and Southern Maryland) in field ponds (transient) and <u>not</u> in woodland ponds as does <u>Ambystoma</u> <u>maculatum</u>.
- 2. In only one of the many known breeding sites in Maryland do maculatum and tigrinum breed together.
- 3. Tigers breed (usually) well in advance (30 to 90 days ahead) of maculatum. Half of our eight-year records are in January. Three years the Tigers bred in February; this year (1962) in March which is exceptionallylate.
- 4. The eggs hatch in about 30 days:
  - (a) tigrinum larvae have a light lateral stripe;
    (b) maculatum does not; maculatum larvae transform in the first part of June or late in May.
  - (c) <u>tigrinum</u> eggs are very serous -- they cannot be taken out of the water "in toto";
  - (d) <u>maculatum</u> eggs can be removed from the water without having them run through your fingers.

Dr. Stine was hoping to explore some Eastern Shore ponds and planned to include the Virginia counties. We hope he was successful:

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MARYLAND TURTLES is a 1961 publication of the Maryland Department of Research and Education, Solomons, Maryland (Educational Series No.50). The author is Frank J. Schwartz of the Chesapeake Biological Laboratory at Solomons, Md. It is a 44-page, soft cardboard-bound, attractively designed pamphlet ably illustrated in black and white by William Meredith, Mount Saint Mary's College and Mrs. Carol Whitesell.

Mr. Walt Kelly, originator of "Pogo", has contributed his talents to create the cover. "Churchy," the turtle of the comic strip "POGO", stands astonished and fascinated in his flatbottom scow and peers down on a less sophisticated Chelonian. Frank J. Schwartz and his aides have turned out an excellent guide to the MARYLAND TURTLES and one which Maryland and Virginia herpetologists will profit by owning. Price and availability will be noted in next Bulletin.

WANTED : SNAPPING TURTLES (Chelydra serpentina)

FIFTEEN ARE NEEDED

MEDIUM TO LARGE ADULTS PREFERRED.

BRING THEM TO THE REPTILE HOUSE

NATIONAL ZOOLOGICAL PARK

YOU ARE ASSURED THAT THESE SPECIFIENS WILL BE USED IN A SPECIAL STUDY OF THE SPECIES. CHECK IN AT THE REPTILE HOUSE WITH KEEPER LESTER RATLIFF.....

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# NOTES ON MARYLAND HERPETOLOGY (continued)

Items on Maryland herpetology have been appearing in "CHESAPEAKE SCIENCE" described as a "regional journal of research and progress on natural resources." Those noted to date are as follows:

1(1): 71-2 Notes on the Soft-shell Turtle (Trionyx) in Maryland Jaters Romeo Mansueti and David H. Jallace

1(2):116-17 The Barnacle (<u>Platylepas hexastylos</u>) Encrusting a Green Turtle (<u>Chelonia m. mydas</u>) from Chincoteague Bay, Maryland Frank J. Schwartz

1(2):119-20 Predation of Eggs of the Spotted Salamander (Ambystoma maculatum) by the Leech (Macrobdella decora).

1(3-4):203-4 Another Rainbow Snake (Abastor erythrogrammus) from Haryland\*

John E. Cooper

2(1-2):100-101 A Record of the Hississippi Map Turtle (Graptemys kohni), in Maryland (collected in the Patuxent) Frank J. Schwartz and Benjamin L. Dutcher

There are six species of turtles, not native to Maryland, which are known to have been introduced into Maryland. They are:

Mississippi Map Turtle	(Graptemys kohni) see above
False Map Turtle	( pseudogeographica)
Cumberland Turtle	(Pseudemys scripta troosti)
Red Eared Turtle	( elegans)
Eastern Spiny Softshell	(Trionyx s. spinifera)
Japanese Pond (Reeves')Turtle	(Geoclemmys reevesi)

\* The Rainbow Snake (above) was found dead on the road, U.S. # 301, approximately 1.3 miles NE of the Potomac River Bridge near Newberg, Charles County, on July 10, 1960. It is in the U.S. National Museum collection. (USNM # R3012).

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CONTRIBUTIONS TO "NOTES ON MARYLAND HERPETOLOGY" FROM MENBERS OR FRIENDS OF VHS, LIVING OR COLLECTING IN MARYLAND, WILL BE USED IN FUTURE ISSUES OF THE VIRGINIA HERPETOLOGICAL SOCIETY BULLETIN.

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THE NATIONAL ZOOLOGICAL PARK CAN USE YOUR DONATIONS BLACKSNAKES, ETC., FOR FOOD FOR THE TWO RARE KING COBRAS NOW IN THE NZP COLLECTION --- LET'S

TRY TO KEEP THEM THERE:

CHECK WITH SENIOR KEEPER JACK DE PRATO - - - - OR KEEPER LESTER RATLIFF AT THE REPTILE HOUSE.

MENTION THE VHS : YOUR DONATIONS WILL BE APPRECIATED :

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#### RECENT LITERATURE AFFECTING VA. HERPETOLOGY

1. A Synopsis of the Lizards of the <u>sexlineatus</u> group (Cnemidophorus). 1962 Bull. Amer.Mus.Nat.Hist. 123(3):155-210; Richard G. Zweifel and William E. Duellman.

The Virginia subspecies of the Six-lined Racerunner or "Whiptail" <u>Cnemidophorus sexlineatus pauciporus</u>, Hoffman, is not valid because of the scale characteristics used, and is without geographic significance. Therefore the name, according to Zweifel and Duellman, is once again <u>Cnemidophorus sexlineatus</u> L.

 North American Recent Soft-shelled Turtles (Family: Trionychidae) 1962 Univ. Kans. 13(10):429-611, February 16, 1962; R. G. Webb.

The range map for the smooth soft-shelled turtle <u>Trionyx</u> <u>muticus</u> includes Virginia even though there are no such records as <u>yet</u>. Records are indicated from <u>NNE</u> Kentucky along the Ohio River, and in east-central Tennessee.

3. Some Aspects of the Life History and Ecology of the salamander <u>Leurognathus</u>. Amer. Midl. Nat. 67(1):1-35 (1962) B. S. Martof

The salamander Leurognathus m. marmoratus, found only at Whitetop Mountain in Virginia, could be taken in larger quantity and at more localities following the methods suggested in the article. Basic idea is to divert a mountain stream so as to drain off all of the water followed by a systematic rock-by-rock removal thus rooting out not only shovel-nosed salamanders but Duskies, Two-lined, Spring Spring, and Red Salamanders. The same method could prove interesting on some of the mountain streams elsewhere in the state.

4. Salt Water Aguaria Dr. Robert S. Bailey and Fred C. Biggs. Virginia Institute of Marine Science; revised edition 20 pages, illustrated. Gloucester Point, Virginia.

ASIH \*\*\*\*\*\*\*\*\*\*

Washington, D.C. will be the host city for the forth-coming annual meeting of the American Society of Ichthyologists and Herpetologists.

Some VHS members are also members of ASIH and should find the various activities of interest. Several papers to be given will have a bearing upon Virginian herpetology. A near-future VHS bulletin will cover those papers which concern Virginia. For those not familiar with such proceedings, a conclusion presented in a paper which is read is not accepted until actually published in the technical press. (ASIH's journal is COPEIA). Such publication may follow the reading of the paper by several months, or never reach the printed page. Often such papers are summaries of theses written for partial fulfillment of the requirements for graduate degrees. WLW

-- APPLICATION FOR MEHBERSHIP IN THE VIRGINIA HERPETOLOGICAL SOCIETY (name) (address) (city or P.O.) (county; if Va.)

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(your occupation) Dues: \$1.00 per year -- covers membership card, bulletins & postage. Send money order or check to: Dr. Phoebe H. Knipling (Treasurer), Note on check "for VHS dues" and mail with this detachable stub to: 2623 Military Road, Arlington, Va. Membership card will be sent with the next issue of the VHS Bulletin (allow minimum of one month). PLEASE TYPE OR HAND-LETTER YOUR NAME AND ADDRESS CLEARLY. THANK YOU.

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C.

#### Final page

# NEW ROSTER OF MEMBERS OF VHS

If you did not fill out and return a VHS reader's questionnaire -the wrapper to VHS Bulletin No. 26 -- your society requests that you act immediately. FILL OUT AND RETURN THE ENCLOSED POSTAL CARD TODAY.

THOSE WHO HAVE FILED A COMPLETED QUESTIONMAIRE WITH THE VHS SECRETARY will not find a postal card enclosed with this bulletin. We know you.

SCIENCE FAIR WINNERS - those students who have placed first or second in the category ZOOLOGY, with an exhibit in the field of herpetology, are entitled to a free membership in the VHS for one year. PLEASE have your science or biology instructor countersign your return card. Card should say: "I accept a one-year membership in VHS as a winner in this spring's science fair at High School." Give your full name, address, county. This offer is restricted to the state of Virginia only. (Anyone may request that their names be put on the mailing list to receive future issues of the VHS Bulletin.)

#### ROSTER INFORMATION NEEDED ON ENCLOSED CARD:

NAME MEMBER ? FRIEND ? ADDRESS COUNTY STATE

JUNE 13, 1962: Mr. Lester Ratliff, Keeper, Reptile House, MZP, will talk on reptile study to a group gathered at the Glenmont Recreation Center (near Wheaton High School) on Randolph Road off of Georgia Ave. in the Glenmont Section of Wheaton, Maryland. Time: 7:30 PM. 6/13/.

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PROPER MAILING ADDRESSES: VHS IS CHECKING ITS MAILING LISTS ... WEEDING OUT DUPLICATIONS, BAD ADDRESSES, PRUNING OUT THOSE NO LONGER INTERESTED. PLEASE GET YOUR ADDRESS TO US RIGHT AWAY. USE THE ENCLOSED POSTAL CARD, OR SEND A POST OFFICE CHANGE OF ADDRESS FORM IF YOU'VE MOVED RECENTLY.

VIRGINIA HERPETOLOGICAL SOCIETY BULLETIN # 28 Treasurer: 2623 Military Rd., Arlington, Va. Secretary: 4706 Tallahassee Ave., Rockville, Md. (Return Postage Guaranteed)