

# BULLETIN OF THE VIRGINIA HERPETOLOGICAL SOCIETY

**VOLUME** 5

1985

NUMBER 1

# CATESBEIANA

# Bulletin of the Virginia Herpetological Society

VOLUME	5								0	Sp	ri	n	g,	1	98	35	)											No.	1
	Meeti	inç	3 1	lot	ic	е	•	•						•				•		•	•				•	page	1		
	Edito	ori	ial	P	01	ic	у	•	• •		•	•	•	•		•	•	•	•	•	•	•		•	•	page	2		
	the F	Her	°ρε	eto	it a	un	a	ot	A Hot		egl	hai	ny	Cc	)UI	nt.	у,	V	ir	-g	in	1 a	,			0.00	2		
	Some	Re	ept	cil	65	f	ro	•	Sir	nk	in	a	Cre	ek		• an	d	Ga		•	•	•	•	•	•	page	J		
		Mo	our	nta	iir	IS,	M	on	tgo	om	er	y I	Соі	int	;y	,	Vi	rg	jir	nia	a,								
		Ar	ori	i]-	Ju	ne	,	19	83	,	by	Ρ	au	1	li	co	le	tt	0	•					•	page	13		
	Field	d N	Vot	ces		•	•	•	•	•	•	•	•	• •		•	•	•	•	•		•	•	•	•	page	16		
	Virgi	in	ia	Ac	ad	lem	У	of	Sc	ci	en	се	Al	ost	ir	ac	ts		•	•		•	•	٠	•	page	17		
	Annoi	und	cen	ner	its		•	•	•	•	•	•	•	• •	•	•	•		*		•	*	•	*		page	18		
	News	ar	nd	No	ote	25	•		•	•	•	•	•	• •		•	•	•	•	•	•	•	*	٠	•	page	19		
	Book	Re	evi	iew	1.		•	r i	•	•	•	•	•			•	•	•	•	•	•	•	1	•	•	page	24		
	VaHS	St	pri	ing	J M	lee	ti	ng	II	nf	or	ma	ti	on.		•	•	•		•	•	•	•	+	•	page	25		
	VaHS	Me	emt	ber	•sh	ip	F	or	m	•	•	•	•	• •		•	•	•	•	•	•	•	•	•		page	27		

# BULLETIN INFORMATION

<u>Catesbeiana</u>, the Bulletin of the Virginia Herpetological Society, is issued twice a year by the Virginia Herpetological Society. Membership is open to all individuals interested in the study of amphibians and reptiles. Dues are \$5.00 per volume year for adults, \$3.00 for individuals under the age of 18, and \$7.50 for families (one vote is allowed in a family membership). Membership includes one subscription to <u>Catesbeiana</u>. Dues are payable by January 1 of each calender year. Send checks to Ben Greishaw, VaHS Treasurer, 7622 Hollins Rd., Richmond, VA 23229. Make checks payable to the "Virginia Herpetological Society".

Herpetological societies desiring exchange of publications should send copies of their publications to Dr. Joseph C. Mitchell, Dept. of Biology, University of Richmond, Richmond, VA 23173. Any materials for inclusion in Catesbeiana should also be sent to Dr. Mitchell.

### MEETING NOTICE

The Spring meeting of the VaHS will be held April 13, 1985 at Old Dominion University, Norfolk, VA. Christopher A. Pague is hosting the meeting. See pages 25-26 for complete meeting information and a map.

-1-

Cover: Sceloporus undulatus by Dick Bernard.

# EDITORIAL POLICY

Catesbeiana replaced the formal name of the Bulletin of the Virginia Herpetological Society in 1981 as the publication of the VaHS to reflect the changes in the society's structure. Although the format of the bulletin changed dramatically, its adherence to the central theme of the science of Virginia herpetology has remained firm. Beginning with the editorship of F. J. Tobey (1958-1980) and continuing with D. A. Merkle (1981-1982), the bulletin has published with few exceptions, only scientific information and news on the herps of Virginia. We will maintain that tradition. During several meetings in 1980 and 1981, brief discussions addressed this point. It was agreed that Catesbeiana will publish articles pertaining to herpetology outside of Virginia only if insufficient material is on hand to complete an average size issue (about 18 pages). In this vein, articles pertaining to species found in Virginia will take precedence over those which do not. Rarely, if ever, will articles be reprinted in Catesbeiana after they have been published elsewhere. If someone is unsure whether something he/she has is appropriate, he or she should contact the editor.

Authors may wish to submit articles in final copy-ready form. To maintain consistancy, the type is IBM Letter Gothic (with 12 characters per inch), using a carbon ribbon; all margins are 1 inch, leaving the pages unnumbered. Consult the style of articles in this issue for additional information. Please be advised, however, that articles are usually reviewed by at least one officer (past or present) of the VaHS in addition to the editor. All changes must be approved by the author before publication. Thus, manuscripts, in final copy or not, should be submitted well in advance of March or September.

Reprints of articles are not available to authors, however, authors may reprint articles themselves to meet professional needs.

Herpetological artwork is welcomed. If the artwork has been published elsewhere, we will need to obtain copyright before we can use it in an issue. We need drawings and encourage members to send us anything appropriate, especially their own work.



-2-

### THE HERPETOFAUNA OF ALLEGHANY COUNTY, VIRGINIA

# Richard L. Hoffman Radford University, Radford, Virginia 24142

Clifton Forge is a small town located in the Ridge and Valley Province of central western Virginia, at a point where the high sandstone capped mountains are breached by the headwaters of the James River system. It was my extreme good fortune to have spent my childhood years in such a locality, with immediate access to a wide variety of natural habitats and an abundance of native wildlife to observe and collect. An early interest in reptiles was encouraged by my parents, and at the critical age when the urge to keep pet snakes struggled toward something more substantial, a local physician with a tangential interest in the same subject served as a catalyst by making available his "library" of several elementary books (by Ditmars, Conant & Bridges, Schmidt & Davis). Such volumes, virtually all that existed for a young naturalist during the 1940s, were literally books of revelation: they showed that the study of reptiles was an honorable profession or avocation, and revealed what worlds opened up to a serious student even at II years of age. No Balboa ever gazed upon a new ocean with wilder surmise than I experienced upon learning how to make the proper scale counts and take an unknown specimen through a key to its correct identification.

It was from there only a short step to the 1939 edition of the Stejneger & Barbour "Checklist" (its details then largely unintelligible) and to Copeia and Herpetologica. Kindly professionals gambled heavily on an unknown starter and sent reprints about the Virginia herpesian fauna. I suppose that M. Graham Netting at the Carnegie Museum was the first: he was then Secretary of the American Society of Ichthylogists and Herpetologists and I had contacted him about becoming a member. Netting strongly recommended that I embark on a study of the local amphibians and reptiles (and, to be sure, send samples to the Carnegie Museum). Among the papers that he gave me were those on material from Rockingham County written by himself and L. Wayne Wilson (1940), and on New Kent County by Neil D. Richmond and Coleman J. Goin (1938). The latter made a deep impression on a pristine tabula rasa; I recall marveling over the wonderful names of colors - from Ridgeway's Color Standards and Color Nomenclature - they used to describe their specimens in life. The impression made by the arrival of two huge packages of separates from E. H. Taylor cannot be done justice aside from the assertion that more than anything else they convinced me that taxonomy was the way I wanted to go In life! All these, and similar papers, made a predictable effect and instilled a predictable ambition: 1 too would work toward writing a paper of, perhaps, as much as four or five pages on the reptiles of Alleghany County. This ambition was in fact fulfilled within an immodestly short time and with only a very superficial knowledge of the subject. Alas, my models were not well chosen, as perusal of the 1945 paper will show. Had I then a copy of Conant's excellent study of Dutch Mountain, Pennsylvania, surely my aspirations would have been much higher and the eventual result far less embarassing to its author later on.

-3-

Catesbeiana 5(1): 3-12, 1985

Within a few years a chain of events, including fascination with new vistas of arthropod taxonomy, some unsavoury professional contretemps, and an increasing reticence to kill and embalm vertebrates, drew me ever away from active research in herpetology and the early hope to prepare a really good "survey paper" for Alleghany County gradually waned and faded.

This failure has always been a matter of considerable personal regret, as the amphibian and reptile fauna around Clifton Forge is exceptionally diverse and interesting from a biogeographical standpoint: a mixture of manifestly lowland "Carolinian" species invading westward along the floodplain of the upper James River system with subboreal "Alleghanlan" elements along the higher ridges. There was even, as I learned as long ago as 1943, an undescribed species of salamander in the region. As I think the following account will show, Alleghany County has one of the most extensive lists of herpesian species of any comparable area in VIrginia. It is moreover notable for the apparent absence of several forms which should occur there but have not yet been discovered. Although the detailed study that this local fauna so richly merits will never be conducted by me. some small measure of atonement might be achieved through the presentation of a rather anectodal account that pretends to summarize my present knowledge (mostly gained after publication of the highly premature 1945 list).

I resided in Clifton Forge until 1945, and conducted local field work on week-ends and in the summers of my undergraduate years at the University of Virginia (1945-1950). Thereafter I still made frequent visits to my parents' home until about 1955 when most of my ties were broken by family deaths and the distractions of my own new family in Blacksburg. Although many excursions have been made in and through Alleghany County down to the present, their purpose has generally been the collection of arthropods, with "herptiles" collected or observed only tangentially.

One naturally recalls with special vividness and affection the first intellectual experiences. Writing about the subject at hand evokes a flood of memories: the first <u>Pseudotriton</u>, resplendent in the mud under a stone; the first giant male of <u>Eumeces laticeps</u>, captured after a harrowing chase; the first <u>Carphophis</u>; the first <u>Sterno=</u> therus. What a great satisfaction I would experience if some young naturalist would be inclined to continue what I started, and proceed with the advantage of today's greater knowledge to develop a real herpetology of Alleghany County, emphasizing ecological and distri-

#### butional aspects of the subject.

#### THE AREA

There are few units of space more arbitrarily defined than most counties, yet some limits have to be set and county surveys find a long tradition in the literature of herpetology. Alleghany County makes a kind of cross-section of the central Virginlan Alleghanies, with one

-4-

edge along North Mountain overlooking the Great Valley, the other following the main axis of Alleghany Mountain and forming part of the Virginia-West Virginia state line above the Greenbrier Valley. In general shape it is a distorted triangle (Fig. 1), its surface dominated by the long, narrow ridges and valleys that reflect the main northeast-southwest axis of Applachian folding. Probably half of the county's surface lies above 1500 feet; the highest point is 4048 feet and the lowest is just a foot or two above the 1000 foot contour.

The best perspective of the county and its surface features is to be had from the plastic relief maps produced by the Corps of Engineers, Army Map Service, from the 1:250,000 map series of eastern United States: NJ 17-8 (Bluefield) and NJ 17-9 (Roanoke). In the lack of these three-dimensional models, one can gain a fair idea of topography by reference to the corresponding maps themselves, and of course far greater detail from the 7 or 8 maps of the 7.5 minute series (available from the Virginia Division of Mineral Resources, Charlottesville or the U. S. Geological Survey, Reston).

The major lowlands are the valleys of the larger streams (Potts Creek and the Cowpasture and Jackson Rivers), chiefly developed on red and black shales of upper Devonian age. The ridges of the eastern half of the county are formed by the resistant white Clinch sandstone (Silurian), and may be structurally either anticlinal or synclinal. The latter typically form long "**canoe**shaped" valleys floored by Cambrian and Ordovician carbonate strata, rimmed with sharpedged ridge crests attaining their maximum heights at the valley ends. Richpatch Valley and Hot Springs Valley are the two largest structures of this type. The western half of the county is dominated by largely shale mountains of Devonian and Mississippian age deposits; these mountains tend to be somewhat lower and less regular in form than their sandstone counterparts.

By comparison with other parts of western Virginia, carbonate rocks are here only marginally represented, chiefly in the floors of anticlinal valleys, but some middle Devonian limestone occurs in long narrow outcrops paralelling the axes of the major stream valleys. A subsantial number of caves occur in both categories of exposures, offering suitable habitat for a variety of salamanders.

Surface drainage is basically of the trellis-pattern, reflecting the strike of bedrock strata. Numerous watergaps occur and often provide cool, shaded, moist habitats. There is very little natural lentic habitat, aside from floodplain ox-box ponds and marshes, and few man-made impoundments of any significance. These few, however, have been generally utilized by many amphibians and reptiles. In particular one may cite a number of ponds created by the routing and rerouting of the right-of-way of the Chesapeake & Ohio railroad (at Griffith and Lowmoor, for instance). Such ponds are undergoing rapid succession and may no longer exist in a few decades.

In general, streams of all sizes tend to be relatively pristine and unpolluted, the major exception being the Jackson Piver below Covington which was for decades massively contaminated by paper-mill

-5-

wastes and even as recently as the time of my residence at Clifton Forge was totally black, malodorous, and essentially abiotic (a condition which persisted essentially as far downstream as Richmond). Substantial clean-up in recent years has greatly abated the chemical pollution although the dark color largely persists.

By far the greatest majority of the county is contained in the purchase area of the George Washington National Forest (a map showing the actual publically-owned land in green overprint is available from the Forest Supervisor, Harrisonburg). The forest thus enjoys a measure of protection again fires, and timber harvest takes place at a rather modest level. Most of the original forest was oak-hickorychestnut, with a heavy admixture of pine in the lower and drier places. The chestnut component of the forest is essentially now missing, although stump sprouting persists and many of these shoots attain treesize and may flower and fruit before falling victim to the ravages of chestnut blight (Endothia parasitica) which destroyed these trees during the 1930's. On the western sides of anticlinal ridges a northern hardwood forest develops, and in the water gaps the typical "cove forest" with hemlock, tulip poplar, magnolia, and hickories, is to be found.

#### COLLECTING SITES

Some of the more important collecting stations are here briefly described; others will be identified as they occur in accounts of particular species.

I. Clifton Forge, the urban area itself and wooded land within a one-mile radius of the city center. The majority of the region so defined lies on Devonian black shale, with some thin outcrops of Helderberg limestone and its associated sandstone beds. Several small streams cross the city, usually with partly wooded floodplain reaches, and on the hillsides some sparse forest remains. A substantial number of the Alleghany County species have been found within the city limits (even an occasional vagrant black bear used to pass through as well). To the north, the black shale is replaced by a broad belt of a younger (Brallier) Devonian red shale, generally invested by pine woods.

2. McGraw's Gap, about 4 miles northwest of Clifton Forge on County Rt. 606. This is a narrow, deep watergap cut by Smith Creek across Fore Mountain, elevation about 1500 feet at base, with dark

streamside woods of hemlock and rhododendron merging into pleasant stands of tulip poplar, maples, and hickories. During the 1940's the road to McGraw's Gap (which went on to cross Warm Spring Mountain) was unpaved and little traveled, and one used to regularly find interesting specimens as the result of leisurely foot travel. Most of the few finds of <u>Eumeces anthracinus</u> are centered in the Gap. It is also the type locality for several millipeds and collection site for some typically boreal small arthropods.

-6-



Figure I. Alleghany County, Virginia. Major mountain ranges, surface drainage pattern, and important collecting localities.

Clifton Forge and vicinity. 2. McGraw's Gap. 3. Smith Creek.
 Warm Springs Mountain. 5. Griffith. 6. Richpatch Valley. 7.
 Potts Creek Valley. 8. Longdale.



3. Smith Creek. Entering the Jackson River at Clifton Forge, this pleasant trout stream flowed northwest (forming, en route, the reservoir of the local water supply) to McGraw's Gap, where it divided into two branches heading up near 4000 feet on Warm Springs Mountain. Even within Clifton Forge itself the creek was home for plenty of water snakes and aquatic plethodontids; further out it had several small ox-bow ponds which harbored spotted salamanders and wood frogs as well as newts and a few green and pickerel frogs. Little used roads and trails made it possible to follow the stream for most of its length.

4. Warm Springs Mountain. Beginning just northeast of Covington. this mountain achieves quickly an impressive mass, and continues on northeastward nearly to Burnsville in northern Bath County - a length of nearly 40 miles. Over much of this distance the ridge crest is well above 3000 feet, and elevations of 4048 feet are attained at Big Knob, northeast of Covington, and 4228 feet at Bald Knob, just over the Bath County line near Hot Springs. For most of its length Warm Springs Mountain is the eastern member of an anticlinal valley system. Its southeastern slopes tend to be dry, forested in oak and pine, whereas the northwestern face, just below an outcrop of Clinch sandstone forming the crest, supports a belt of northern hardwoods, a rich mesophytic flora. Big Knob, an impressive eminence when seen while driving south from Hot Springs, is disappointingly a little too low, and not extensive enough, to have any spruce forest. It has not, however, been adequately collected and I would not discount the small possibility of its harbouring some kind of small dark Plethodon of the nettingi-hubrichti group.

5. Griffith and vicinity. At one time this was a local stop on the C & O railroad, about six miles east of Clifton Forge, although there is no longer even a place-name sign to locate the site. Griffith is interesting because it is the location of an ox-bow pond cut off when the railroad amputated a meander of the Cowpasture River nearly a century ago. Originally of full river width (ca. 50 feet or more), the pond has become much smaller even during my lifetime, and the open water is annually encroached by the shallower marshy end. The substratum here is Brallier shale, with a subxeric woods of Virginia pine and oaks. The railroad bed itself used to be a good place to see <u>Cnemidophorus</u> and an occasional big <u>Eumeces laticeps</u>. The pond has a rich fauna of frogs (six or seven species) and has by no means received the careful study that it deserves with respect to ambystomatids and turtles.

6. Richpatch Valley. This is a high "canoe-shaped" anticlinal

valley southwest of Lowmoor, running along the southern edge of the county for about ten miles, with an elevation of about 2500 feet. A number of caves occur, including near the southwestern end Blue Sprinc Run Cave, the only location in the county for <u>Eurycea lucifuga</u>. The valley terminates at the northeast under the peak of Waites Mountain, which towers over Clifton Forge, and at the southwest by the subconical emience of Mud Run Mountain.

-8-

7. Potts Creek Valley. Running off to the southwest from Covington, Potts Creek has carved a lovely broad, and still mostly unspoiled valley from a wide belt of Brallier shale. Potts Creek heads up vis-a-vis Big Stony Creek in Ciles County, and inspection of the plastic relief map NJ 17-8 leads one to suspect that at one time the Jackson River flowed down the joint courses of these two creeks to enter New River near Pearisburg. Subsequent piracy by a tributary of the Cowpasture in the region between Lowmoor and Covington may account for the near-reversal in direction of the Jackson at the latter settlement. Most collections along Potts Creek have been made around the small places called Jordan Mines and Boiling Springs, where caves in the marrow belt of Devonian limestone (Helderberg group) have been exposed. A tiny tributary to Potts Creek, running partly along the Craig County line, contains what I believe to be the northernmost Virginia population of Desmognathus quadramaculatus.

# COLLECTING ACTIVITY

Some very old specimens in the National Museum of Natural History (USNM) are labeled only "Upper James River", Virginia, and it is possible that these may have been taken at least in part in the present boundaries of Alleghany County.

In July of 1910, a W. D. Appell collected some material at Clifton Forge which was later placed in the USNM collection. I have never come across any information on Appell, and can offer no insights on the circumstances of his activities at that locality.

On September 18 and 19, 1934, Howard K. Gloyd and his wife Leonora K. Gloyd drove through the county (he collecting reptiles, she Odonata) and obtained a fair variety of species (now University of Michigan Museum of Zoology) along Simpson's Creek near Longdale, about 10 miles east of Clifton Forge. While at Longdale, Gloyd enlisted the services of several local residents to collect live snakes for him. A timber rattlesnake taken at Longdale by M. M. Nicely is illustrated in Gloyd's classic monograph (1940). While driving westward the Gloyds also obtained a few specimens at an oxbow pond between Lowmoor and Clifton Forge.

I began to pick up snakes as pets about 1937 and got my first book (Ditmars' <u>Reptiles of the World</u>) in the following year. During the period 1937-1942 reptile study proceeded apace, but amphibians were essentially neglected (and nothing was preserved) until 1943 when salamanders and anurans came under scrutiny through the influence of E. R. Dunn's 1918 list and key to Virginia herptiles (I recall the utter perplexity imposed by Dunn's use of tooth and tongue characteristics. It was often easier to identify by inference from the Latin name, and so <u>Pseudotriton ruber</u> was correctly named!). During much of the "live snake" period, however, every specimen taken was recorded with more or less complete scale counts before being released.

-9-

Even some simple marking was attempted (clipped subcaudals), but so few recaptures were made that this activity was soon discontinued.

From 1944 to about 1950 it was my fairly determined intention to produce a state herpetology, and about 2000 specimens were taken in many parts of the state. Eventually this fantasy was replaced by others and virtually all of my preserved material - including that from Alleghany County - was donated to the National Museum, where virtually all specimens taken subsequent to 1950 have also been deposited. A nearly complete set of salamanders was presented to the Carnegie Museum in 1944. Around 1951 I became acquainted with Walter B. Newman in Blacksburg. Newman was a very dynamic young man with a similar idea about a state manual, and since I was at that time becoming deeply engrossed with arthropod taxonomy, I loaned him nearly all of my reprint collection, museum locality records, and field notes. Some years later, Newman moved to Florida where he suffered a fatal heart attack and his (and my) herpetological material was lost for the most part. Sic transit gloria mundi.

I have not been able to keep track of recent collections made in Alleghany County by other naturalists except in a very sketchy way. On October 9 and 10, 1956, Dr. Richard Highton and I did some salamander collecting just north of Clifton Forge and along the crest of Warm Springs Mountain . During the 1950's Dr. Lester Harris picked up material at Boiling Springs, and the same region (with an interesting cave) was later visited by Dr. Victor Hutchinson and at least one field party from Duke University. Dr. S. G. Tilley drove through the western half of the county in 1978, collecting for salamanders (especially desmognathids). In early September, 1984, a small party composed of J. C. Mitchell, C. A. Pague, Allan Garland, Paul Hillyard, and myself collected in McGraws Gap and at Griffith, obtaining several species of interest.

As noted earlier, personal field work since about 1950 has been incidental to other interests, but has been conducted over much of the county and any herptiles except the most common usually retained and sent on to the USNM collection.

#### MISSING SPECIES

My 1945 list accounted 46 species of amphibians and reptiles from Alleghany County. One of these was a misidentification: "Leiolopisma unicolor" was certainly only a small specimen of Eumeces anthracinus (it was captured during the "live snake" era and not preserved). Eight other species were listed as probable residents of the county, and three of these were eventually discovered. The other five (plus one not considered at the time) have continued to evade detection. But all six species occur both north and south of the county and in habitats no different from those represented there. Where could they be?

I. Ambystoma jeffersonianum (Green). Certainly not rare around both both Radford and Blacksburg, only 50 miles south of Clifton Forge. Perhaps this species is more likely to occur in the few wooded parts of the high anticlinal valleys and will be found with careful seasonal search.

-10-

2. <u>Desmognathus ochrophaeus</u> (Cope). Found to the south in Giles County, and northward in Highland and Rockbridge counties, this salamander has persistently - and exasperatingly - eluded my best efforts in suitable habitats. As I have found <u>ochrophaeus</u> in numerous localities throughout the Appalachians, it is not a matter of not knowing where to look in Alleghany County! I find in Virginia that the species often occurs in small and isolated populations, whose discovery may be more a matter of serendipity than expertise. I am convinced it will be found on Warm Springs Mountain and would like to be the person who eventually establishes the record.

3. Scaphiopus holbrookii (Harlan). It is well-known that spadefoot toads may be overlooked in a given area for years, until brought into chorus by phenomenally low barometric pressure and torrential rains. This is true for instance at Radford, Virginia, where I have heard only one chorus in twenty years residence (and where spadefoots are not infrequently discovered during excavations or other incidental activities). It is not impossible that this species does occur in Alleghany County but simply not active coincidental with the presence of someone likely to notice and collect them.

4. <u>Regina septemvittata</u> (Say). Another species occuring both north and south of Alleghany County but so far not found there. I have no explanation for this apparent absence.

5. Thamnophis sauritus (Linnaeus). Same remark as for the preceeding, but certainly in western Virginia ribbonsnakes are astonsihingly scarce and the absence from the county list may be more real than apparent. Still, a lot of time spent in the marshier ends of ponds (e.g., at Griffith) might be worth the investment by eventually vielding a specimen.

6. Pseudemys sp. Sight records of large sliders exist for the Cowpasture River at Millboro Springs (Bath County), and a newspaper photo of such a turtle caught at Eagle Rock, Botetourt Co., establish that some kind of <u>Pseudemys</u> does occur in the upper James River system. The Cowpasture River near Griffith seems the most likely place to search, and probably Potts Creek should not be excluded from consideration.

7. Clemmys guttata (Schoepf). A very old personal sight record for the Cowpasture River at Fort Lewis, Bath County, establishes this species in the upper James River system, and raises the possibility that spotted turtles may occur in Alleghany County. The oxhow pond at Griffith suggests itself as one of the most likely places to search in this respect.

With this list of challenges for future collectors, the introductory remarks may be concluded and consideration of the amphibian species will form the basis for the second part of this serial treatment.

# LITERATURE CITED

Conant, R. 1942. Amphibians and reptiles from Dutch Mountain (Pennsylvania) and vicinity. Amer. Midl. Nat. 27:154-170.

Conant, R. and W. Bridges. 1939. What snake is that? Appleton-Century, NY.

-11-

Ditmars, R.L. 1928. Reptiles of the World. McMillan Publ. Co., NY.

- Dunn, E.R. 1918. A preliminary list of the reptiles and amphibians of Virginia. Copeia 53:16-27.
- Gloyd, H.K. 1940. The rattlesnakes genera <u>Sistrurus</u> and <u>Crotalus</u>, a study in zoogeography and evolution. Chicago Acad. Sci., Spec. Publ. 4:1-266.
- Netting, M.G. and L.W. Wilson. 1940. Notes on amphibians from Rockingham County, Virginia. Ann. Carnegie Mus. 28(1):1-8.
- Richmond, N.D. and C.J. Goin. 1938. Notes on a collection of amphibians and reptiles from New Kent County, Virginia. Ann. Carnegie Mus. 27(20): 301-310.
- Schmidt, K.P. and D.D. Davis. 1939. Field book of snakes of the United States and Canada. G.P. Putnam Sons, NY.
- Stejneger, L. and R.W. Barbour. 1939. A check list of North American amphibians and reptiles. Harvard Univ. Press, Cambridge, MA.



-12-

# SOME REPTILES FROM SINKING CREEK AND GAP MOUNTAINS, MONTGOMERY COUNTY, VIRGINIA, APRIL-JUNE 1983

# Paul Nicoletto

# Department of Biology, Virginia Polytechnic Institute and State University, Blacksburg, VA 24061

Sinking Creek and Gap mountains form a continuous geographical formation that is oriented in an approximately east-west direction, forming a natural boundary between Montgomery and Giles counties, Virginia. Large sections of these mountains are included in the Jefferson National Forest. Sinking Creek Mountain is part of the James River drainage basin, while Gap Mountain is part of the New River drainage basin, hence the different names. The ridge tops of both mountains are heavily forested with an oak hickory-climax. The forest on the slopes varies in age with several areas disturbed by clear cutting. Bedrock, large boulders and vegetated talus slopes are some of the more prominant features of the landscape, especially along the ridge top.

Selected sites on Sinking Creek and Gap Mountains were searched for reptiles during the spring of 1983. The majority of the collecting on Sinking Creek Mountain was restricted to the southern slope on or near the ridge top between U.S. 460 and a Appalachian Power Company high tension line located 1.45 km east on County Rt. 621. The elevation of this area was between 900 and 700 m. Collecting on Gap Mountain was restricted to the southwestern slope that descends to the New River in an area refered to as Big Falls. The collecting site was located near state road 625, 0.9 km north from its junction with County Rt. 708. This site consisted of several razorbacks of bedrock oriented parallel with the mountain and separated by forested talus slopes. This site was between 825 and 520 m in elevation. All of the reptiles encountered were caught, identified and then released at the site of capture. The date in 1983 when a species was first encountered is given below. The animals were identified using Conant (1974) and Martof et al. (1980).

# Species list for Sinking Creek Mountain.

<u>Terrapene carolina carolina</u> (Eastern Box Turtle). May 28. Several turtles were found in the forested areas along the ridge top.

Carphophis amoenus amoenus (Eastern Worm Snake). April 27. This

individual was found under a rock on the power line in an area of fairly shallow soil.

<u>Coluber constrictor constrictor</u> (Northern Black Racer). One of these snakes was encountered on April 15th in a talus region on the power line.

<u>Diadophis punctatus edwardsi</u> (Northern Ringneck Snake). April 11. Several of this small woodland species were found under rocks and logs along the power line and ridge top.
<u>Elaphe obsoleta obsoleta</u> (Black Rat Snake). April 25. This individual was being mobbed by a group of birds when it was discovered.
<u>Lampropeltis triangulum triangulum</u> (Eastern Milk Snake). These were the most common snakes on the power line. Four different juveniles were

-13-

Catesbeiana 5(1):13-15, 1985

caught between April 25 and May 28. On April 25th an adult male and female were found under the same rock.

- <u>Agkistrodon contortrix mokasen</u> (Northern Copperhead). Two of these snakes were encountered on the power line, one individual, identified by its size and pattern, was observed on April 25, 27 and May 6th under the same rock.
- <u>Crotalus horridus</u> (Timber Rattlesnake). A large adult was observed May 6th and 19th basking on a rock cleft on the power line. To satisfy a personal curiosity I brought a dead white-footed mouse, <u>Peromyscus</u> <u>leucopus</u>, with me on May 19th. I tossed this mouse about a half a meter from where the rattlesnake was basking. The snake immediatly increased its rate of tongue flicking and oriented towards the mouse. Whether the increased rate of tongue flicking was due to my presence or to that of chemical cues from the dead mouse I do not know, but my presence seemed to disturb the snake so I left. Upon returning about a half hour later I found the mouse and snake both gone. After carefully searching for the snake I found it had moved to another location several meters away. I assumed that the rattlesnake ate the mouse. I returned later that day and could not find the snake.
- <u>Sceloporus</u> <u>undulatus</u> <u>hyacinthinus</u> (Northern Fence Lizard). April 11. These lizards were very common on the power line and several were found in the forest along the ridge top. During the spring no adult fence lizards were encountered on the north slope of the mountain, I assumed that this was because the north slope averaged about 10°C cooler than the southern slope. However, during the summer I found several adults during midday on the northern slope, they apparently moved to this different microclimate to remain active throughout the day.
- <u>Eumeces fasciatus</u> (Five-lined Skink). April 11. Five skinks, three juveniles and one adult male and female were found along the power line. The males head appeared slightly reddish, signifying that it was in breeding condition.

# Species List for Gap Mountain

<u>Elaphe obsoleta obsoleta</u> (Black Rat Snake). May 20. Several rat snakes were caught on the bedrock razorbacks. These individuals were laying outside of fissers in the rock apparently basking. One adult and several juveniles were found.

<u>Thamnophis sirtalus sirtalis</u> (Eastern Garter Snake). April 28. A small adult was found apparently basking on the sunlit side of a razorback. Crotalus horridus (Timber Rattlesnake). May 31. Two rattlesnakes were

encountered on the razorbacks and one was encountered on a talus slope.

<u>Sceloporus undulatus hyacinthinus</u> (Northern Fence Lizard). April 28. This species was the most common reptile found in this region. It was encountered on both the razorbacks and the talus slopes. This lizard was also encountered in a clearcut area on the southern slope of Gap mountain 1.3 km west on County RT. 708 from its junction with U.S. 460.

-14-

Eumeces fasciatus (Five-lined Skink). May 20. Five-lined skinks were found on the razorbacks and on the talus slopes.

# Acknowledgments

I would like to thank Dr. Joseph C. Mitchell for reviewing this manuscript and Dr. Albert Hendricks for the use of his word processor.

### Literature Cited

- Conant, R. 1975. A field guide to reptiles and amphibians of eastern/central North America. Houghton-Mifflin Co. , Boston.
- Martof, B. S., W. M. Palmer, J. R. Bailey, and J. R. Harrisch. III. 1980. Amphibians and reptiles of the Carolinas and Virginia. The University of North Carolina press, Chapel Hill.





-15-

# FIELD NOTES

This section provides a means of publishing natural history information on Virginia's amphibians and reptiles which does not lend itself to full-length articles. Observations on geographic distribution, ecology, reproduction, phenology, behavior and other areas are welcomed. Reports can be on a single species, groups of species or fauna from selected areas, such as a state park or county. The format of the reports is TITLE (species or area), COUNTY, and LOCATION, DATE OF OBSERVATION, OBSERVERS, DATA AND OBSERVATIONS. Names and addresses of authors should appear one line below the report. Consult published notes or the editor of this section if your information does not readily fit this format.

If the note includes information on geographic distribution, a voucher specimen or color slide should be taken for verification and deposited in a permanent museum or sent to the VaHS. Species identification for observational records should be verified by a second person.

Send records (double spaced, typed) or inquiries to Dr. Joseph C. Mitchell, Dept. of Biology, University of Richmond, Richmond, VA 23173.

The correct citation is: Croy, S. 1984. Field notes: Lampropeltis getulus niger. Catesbeiana 4(1):12.

Agkistrodon contortrix mokasen (Northern Copperhead) and Lampropeltis getulus getulus (Eastern Kingsnake): City of Suffolk, Virginia, Dismal Swamp National Wildlife Refuge, 5 km E Magnolia and 8 km W Bowers Hill. 2 August 1984. J. P. Megonigal.

On August 2, 1984 at 1100 hrs EDT I observed an adult eastern kingsnake and an adult copperhead (estimated 1.3-1.8m and 1.0-1.4m, respectively) knotted together with each apparently constricting the other. The copperhead's eyes appeared glazed and its mouth was ajar. It appeared the kingsnake had recently overcome the copperhead. After 90 min the kingsnake was one-half meter away from the original spot with its tail in a hole in a bank of a water-filled ditch. The copperhead was approximately half consumed (head first). Thirty minutes later the kingsnake was observed with approximately 10cm of the copperhead's tail protruding from its mouth. Within fifteen minutes of this last observation the kingsnake was gone. The copperhead was shorter but thicker than the kingsnake and had been observed in residence on the site of the confrontation for at least two years. The air temperature was  $32^{\circ}$  C ( $90^{\circ}$  F) and it was sunny and humid.

J. Patrick Megonigal, Department of Biological Sciences, Old Dominion University, Norfolk, VA 23507.



# VIRGINIA ACADEMY OF SCIENCE ABSTRACTS

Four herpetological papers were presented at the VAS meetings held on May 16-18, 1984 at the University of Richmond, Richmond, VA. The abstracts reprinted below are with the permission of the editor of the VA Journal of Science.

> ACTIVITY BUDGET OF THE LIZARD, ANOLIS LIVIDUS. G. R. Brooks, Dept. of Biol., Col. of William and Mary, Williamsburg, Va. 23185. An activity budget was developed for adult Anolis lividus, a solitary endemic on Montserrat, W.I. Forty-three males and 30 females were observed for a total of 52 hours (male  $\bar{x} = 48$  min.; females  $\bar{x} = 36$  min.). Males changed their position less frequently than females. Females made twice as many successful foraging forays per hour than males (male  $\bar{x} = 2.7$ ; female  $\bar{x} = 5.9$ ). Males captured prey at higher sites than females (male  $\bar{x} = 1.5$  m; females  $\bar{x} = 0.3$  m). The majority of social interactions occurred between adult males and juveniles.

> FEMALE REPRODUCTIVE CYCLES IN SYNTOPIC POPULATIONS OF THE FRESHWATER TURTLES CHRYSEMYS PICTA AND STERNOTHERUS ODORATUS IN CENTRAL VIRGINIA. Joseph C. Mitchell, Dept. of Biol., Univ. of Richmond, Richmond, VA 23173. Female reproductive cycles were studied over a 2-yr. period in populations of painted turtles, C. picta, and stinkpots, S. odoratus, in a central Virginia lake. Phenology of the ovarian cycles was similar between years within species, as well as between species, with three exceptions. C. picta females exhibited a quiescent period of follicle growth of Z-3 wks after the egg-laying season. S. odoratus females exhibited a short to nonexistent quiescent period. Oviductal eggs were found in C. picta mid-May to mid-July and in S. odoratus mid-April to mid-July. Most follicle growth was completed by winter brumation in S. odoratus, but not until early May in C. picta. Mean clutch size was 4.2 for C. picta and 3.2 for S. odoratus. There were no significant differences between years within species. Clutch size and egg width were positively correlated with female size. Age at maturity was 6 for C. picta and 4 for S. odoratus.

> THE MATING CALL AND DISTRIBUTION OF HYLA CHRYSOSCELIS AND H. VERSICOLOR IN VIRGINIA. Christopher A. Pague, Dept. of Biol. Sci., Old Dominion Univ., Norfolk, Va. 23508, & Joseph C. Mitchell, Dept. of Biol., Univ. of Richmond, Richmond, Va. 23173, & Richard L. Hoffman, Dept. of Biol., Radford Univ., Radford, Va. 24142. Analysis of the vocalizations of H. chrysoscelis and H. versicolor revealed nonoverlapping pulse rates. Results allowed the mapping of the range of each species throughout Virginia. The tetraploid H. versicolor inhabits the Piedmont, Blue Ridge, Great Valley, and the northwest Ridge and Valley provinces. Hyla chrysoscelis occurs allopatrically throughout the Coastal Plain and the Tennessee Valley of southwest Virginia. A broad zone of sympatry occurs in the south-central Piedmont. Recordings showed a significant difference in pulse rate between sympatric and allopatric populations and between populations of H. chrysoscelis in eastern and southwestern Virginia. [Funds for this project were provided by a grant from the Virginia Academy of Science and a grant to Joseph Mitchell from the Virginia Commission of Game and Inland Fisheries.]

PREDATOR-PREY SIZE RELATIONSHIPS IN THE SALAMANDER <u>PLETHODON JORDANI</u>. James A. Taylor\* and Joseph C. Mitchell, Dept. of Biol., Univ. of Richmond, Richmond, VA 23173. A large sample of <u>Plethodon jordani</u> was collected from a single site North Carolina during the evening of 27 May 1978. Prey diversity and predator-prey size relationships are described for this sample and compared with results of a previous study which sampled <u>P. jordani</u> from several sites over a 4-year period. Prey diversity (H) for the single 1978 sample was similar to the diversity found in the wider collected sample. Numerically, millipedes were the most abundant prey in both samples. The 1978 sample differed by containing more lepidoptera larvae and collembola, but fewer ants. Unlike the results in the previous study. prey size was positively correlated with predator size. Coefficients of determination (r<sup>2</sup>), however, indicated that linear regression equations explained 20% or less of the variation in log-prey size.

-17-

#### ANNOUNCEMENTS

#### Spring 1985 VaHS meeting

The spring 1985 meeting of the VaHS will be held at Old Dominion University on April 13 and is hosted by Chris Pague. The meeting will consist of a business session in the morning and a field trip to the Dismal Swamp National Wildlife Refuge in the afternoon. See pages 25-26 for details.

#### Spring 1985 ESHL meeting

The spring meeting of the Eastern Seaboard Herpetological League will be held at the Worchester Science Center on March 9 or 16, 1985 (there are conflicting dates) and is hosted by the Massachusetts Herpetological Society. For additional information write George D. Whitney, DVM, Oakwood Rd., Orange, CT 06477 (we received no information on this meeting and found the dates in other society publications, eds.)

#### Turtle Trust Seminar

The Delaware Herpetological Society is hosting the Turtle Trust's seminar on April 20, 1985 at the Ashland Nature Center. The program will consist of talks on breeding alligator snapping turtles, turtles of Delaware, the bog turtle, care and breeding of box turtles, Asian turtles and aquatic turtles, the wood turtle and informal discussions. For additional information write Susan C. Moreau, Delaware Herp. Soc., 5 Juniper St., New Castle, DE 19720 or call (302) 322-6827 after 6pm. You may also write the VaHS secretary.

# Spring 1985 NCHS meeting

The spring meeting of the North Carolina Herpetological Society will be held sometime this spring (we do not have the date yet). Contact NCHS, NC State Museum of Natural History, PO Box 27647, Raleigh, NC 27611 for the date. Meetings are usually held at the museum in Raleigh. One of us (JCM) gave a talk at their fall meeting. I was impressed with the breadth of the meeting - all sorts of things of interest for all of us. I recommend attending their meetings whenever possible. It really isn't that far - only 3 hrs from Richmond.

#### Husbandry Symposium

The Ninth International Herpetological Symposium on Captive Propagation and Husbandry will be held on June 26-30, 1985 in San Diego, CA. For information write to Sean McKeown, Curator of Reptiles, Program Chairperson, Roeding Park Zoo, 894 West Belmont Ave., Fresno, CA 93728.

ASIH

The American Society of Ichthyologists and Herpetologists will hold its annual meeting at the University of Tennessee, Knoxville, on June 10-15, 1985. For additional information, contact Joe Mitchell, Dept. of Biology, University of Richmond, Richmond, VA 23173.

-18-

#### SSAR/HL

The Society for the Study of Amphibians and Reptiles and the Herpetologist's League will hold their annual joint meeting on August 4-9, 1985 at the University of South Florida, Tampa, FL. Contact Joe Mitchell for additional information.

#### NEWS AND NOTES

#### Fall 1984 VaHS meeting notes

The fall 1984 VaHS meeting was held at the Roanoke Valley Science Museum, Roanoke, VA on Oct. 6. There were 29 people in attendance. During the morning business meeting a slate of officers was nominated (these were voted on by the membership in the afternoon session and approved). They are President - Bob Bader, Vice President - Chris Pague, Secretary - Laura Crews, Treasurer - Ben Greishaw. Joe and Wendy Mitchell were reappointed as editors of Catesbeiana.

Cos Craig reported for Brian Craig on the prices of obtaining patches of the style the old VHS group had in the late 1950's. The cost of over \$200 was deemed too prohibitive and the matter dropped. Tom Krakauer brought up the question of a state herp but no one seemed willing to jump on that bandwagon. Dave Lawrence pointed out that we may be hindered in our growth in numbers by not printing information on exotic herps and on captive husbandry. We concurred that was probably the case but pointed out that we have printed most of what we have received. We (the editors) have received no articles on husbandry except the one on watersnakes by CA Pague; it was printed in the first issue of Catesbeiana. If someone will send us an article, it will likely get printed. Please note that we are very cautious about using articles already printed elsewhere unless we get written permission from the copyright owner first. We will continue to use the guidelines on page 2 unless the membership instructs otherwise.

A large part of the business meeting was devoted to discussions of membership drives and advertisement. We decided to redesign the membership information page into a brochure. Laura Crews, Ben Greishaw and Dave Grim have worked out the details and the last two pages of this issue carry the new design. The advertisement of the society is to be directed on several fronts. Joe Mitchell was to seek getting the society mentioned in Virginia Wildlife (this was accomplished through a small article in the January 1985 issue). Other society members were to obtain information on how to advertise in other publications, e.g., the 4-H group and the VPI Extention Service bulletins. This effort is headed up by Bob Bader and is still in progress.

The spring meeting was set for April 13, 1985 at ODU in Norfolk with Chris Pague heading up the details (see pages 25-26).

The afternoon session was brief with two presentations. Tom Krakauer showed

a video of the making of the latest thing in life-sized model dinosaurs and pointed out that he had one, a <u>Tyrannosaurus rex</u>, in the museum. Joe Mitchell and Chris Pague gave an overview of the two week expedition to Lee Co., VA and vicinity which was billed as an official 1984 VaHS field trip. The rest of the afternoon saw those of us unfamiliar with the museum making the grand tour. The VaHS membership thanks Tom Krakauer for hosting the fall meeting.

-19-

#### VaHS Brochures

Copies of the brochures are available from the secretary for distribution by any member which wants to help advertise the VaHS.

#### Cover Prints Available

Professional prints of the fence lizard on the cover of this issue will be available for purchase so you can frame it and hang it on your own wall. Dick Bernard did a great job on this cover design for us. He also has a number of other herp prints. Ben Greishaw will have all the information you need at the April 13 meeting.

#### Letter from Dr. J. T. Collins



THE UNIVERSITY OF KANSAS • LAWRENCE, KANSAS • 66045-2454

MUSEUM OF NATURAL HISTORY

7 January 1985

Dr. Joseph C. Mitchell Department of Biology University of Richmond Richmond, Virginia 23173

Dear Joe:

Just a short letter to express my delight with Catesbeiana. The Virginia Herpetological Society appears to be a strong organization in the state. As you may be aware, I will be co-authoring the forthcoming edition of the Peterson Field Guide to Reptiles and Amphibians of Eastern and Central North America with Rober Conant. Catesbeiana has been a valuable resource for new information for the Field Guide, particularly the field notes section. Of course, there is a limit to the amount and kind of information that can be included in any field quide that covers a large area and many species, but Roger and I are particularly interested in verifiable records that extend range limits, record size specimens, and the total lengths of meonates (or upper shell lengths of baby turtles). I hope the VHS members continue to publish this type of material in Catesbeiana, because the VHS is the primary source for such data. Keen up the good work, and best wishes in the New Year to you and all the VHS membership.

Sincerely,



As you may have noted, Dr. Collins will be the co-author of the third edition of the Field Guide to Reptiles and Amphibians of Eastern and Central North America by Dr. Roger Conant. As we understand it, the new edition should be out late in 1986. Also, it is interesting to see that some of the work VaHS members publish in CATESBELANA is appreciated by others. Keep up the good work by keeping information coming in. (eds.)

-20-

# Senior Chinese Herpetologist Visits Virginia

The senior Chinese herpetologist, Dr. Zhao Ermi, visited the United States in 1984 for about four months. He spent varying amounts of time at a number of universities and institutions studying how we Americans do herpetological science. He spent several weeks at the Smithsonian Institution. During that time he spent one full day here in Virginia on a collecting trip. Dr. Zhao was escorted by Dr. George Zug. They picked up Joe Mitchell in Richmond and met Chris Pague and Al Savitzky in Sussex County in the morning. During the rest of the daylight hours we collected several herps in that area. At nightfall we were met at the Harrison Lake National Fish Hatchery in Charles City County by Wendy and Josh Mitchell. All in all we had a very good time, collected a goodly number of herps (noted below) and made lasting friendships.

The majority of the herps collected on June 28, 1984 were donated to Dr. Zhao and the Chengdu Institute of Biology. These, along with others Dr. Zhao has been given, represent the first major transfer of herpetological material in several decades. The species from Virginia include:

Eumeces fasciatus Bufo americanus Ambystoma opacum Notophthalmus viridescens Bufo woodhousei fowleri Gastrophryne carolinensis Rana catesbeiana Chelydra serpentina Kinosternon subrubrum Eurycea bislineata Carphophis amoenus Plethodon glutinosus Acris crepitans Hyla chrysoscelis Rana palustris Hyla cinerea Chrysemys picta Sternotherus odoratus

# VaHS Bulletin in the British Museum of Natural History

In 1984 we received a request for several old VaHS Bulletins to update and complete the series in the library of the British Museum (Natural History). This has been done and a complete set of CATESBELANA was included in the shipment. It should be noted that this museum is one of only a handfull of libraries which has a complete set of our publication. (eds.)

# August 1985 Field Trip to Massanutten Mountain

During the period of August 22-25, 1985, Joe Mitchell and Chris Pague are planning

a field trip to the Massanutten Mt. area of northern Virginia to collect information on the herps in that region for the book on VA herps (see below). We are planning to make a collection representative of that area for deposition in the Smithsonian Institution and Carnegie Museums. We have discovered that there are very few specimens representing that area.

The trip is designed to be a group effort and is open to participation by anyone willing to contribute to this effort. The trip will include camping (probably) at Elizabeth Furnace campgrounds in George Washington National Forest. Those accompanying us on the Lee Co. trip last year remember some very good times. We will be able to help with the cost of food but not transportation

-21-

costs and camping fees. Additional information will be available at the Spring meeting on April 13, or you may write to Joe Mitchell (Dept. of Biology, University of Richmond, Richmond, VA 23173) or Chris Pague (Dept. of Biological Sciences, Old Dominion University, Norfolk, VA 23508).

#### Herps of Virginia Book Update

Chris and I have made considerable progress in several areas on the herps of VA book which, as most of you know is financially supported by the Non-Game Species Program of the Virginia Game Commission (remember your state tax check-off). We expect to have completed our examination of the specimens in univerisity and museum collections by the end of the year. This includes gathering a lot of data on variation, morphometrics, diet and reproduction. We have had several years of very good field work which has resulted in a great deal of new information. Perhaps the most important development has been the finalizing of a schedule. We will complete the research phase of the book's production at the end of the summer of 1987. In the year following we will complete the data analysis and writing. Thus, we expect to have a manuscript ready to go to the publishers (yet to be decided) by late 1988. If all goes well we may see this book in late 1989.

The book will consist of a complete summary of all we know about the natural history, life history and ecology of VA herps from the literature and our original research over a 10+ year period (JCM started collecting information in the mid-1970's and he and Chris hit the field research heavily in 1979). In addition, it will contain a complete set of color plates, technical drawings of all tadpoles and aquatic salamander larvae, verified (specimen checked) range maps, keys to all life history stages, and summaries of biogeography and community structure. The idea is to put it ALL in one place and base it all on only VA animals. (Joe Mitchell and Chris Paque)

#### Information Needed

One of the goals of the research associated with the book (above) is to assemble in one place copies of all the data, field notes, observations, and literature ever written by those who have studied and/or collected VA herps. To that end we have been able to obtain copies of the notes of several people who have collected in VA since the early 1900's. No matter how small a contribution you may think you have, please consider sending us copies of your observations and field notes on VA herps. All the information received will be stored in a permanent file and incorporated into the book. You will be acknowledged in the book. The file will be eventually deposited in a permanent location, probably the Smithsonian Institution. If you are interested in contributing, please

contact me.

Note that Chris and I would rather see you publish this information in Catesbeiana before providing copies of the data to us so that you can get publication credit for it in addition to being acknowledged in the book. (Joe Mitchell)

Herps, History and the Urban Cresent

Have you ever wondered what kind of herp community existed where buildings and parking lots are the only landscape? We are all faced with a diminishing area of land suitable for herps and other VA flora and fauna. The urbanization of large tracts of land is proceeding at a rapid pace. By the year 2000 we will

-22-

see an urban environment connecting all the major cities in VA. On of the most publicized is the so-called urban crescent (see map). We cannot stop the trend and construction, of course, but we do have the ability to learn about the biota of the area before it is all gone. While some of you may have strong objections to collecting specimens, it is an important method of documenting the occurrence of plants and animals in all localities. It also provides a means by which scientists can learn about the biology of these animals after their habitats and populations have been destroyed. Deposition of specimens with detailed locality data in permanent museum collections provide valuable historical records. Specimens can be thought of as pages in the book of herp biology.

The area outlined by the urban crescent is inadequately known. We cannot precisely tell you what species existed in many areas the size of small towns because the collection data on many herps collected is too general. Also there are many areas which have simply not been documented. Note that these comments pertain to all areas around growing cities, not just the urban crescent.

We are anxious to see documentation provided for those areas undergoing rapid urbanization. Chesterfield Co., for instance, needs immediate attention because the administration apparently wants to pave the entire county. There are some unexplored areas that will be lost forever. Therefore, we are willing to help anyone willing to collect specimens for documention of any area. We can provide some supplies and can train you in the art of preservation. For those of you willing to bring in specimens but not preserve, we can make other arrangements. All specimens will be deposited in permanent museum collections: the American Museum of Natural History, Carnegie Museum and the Smithsonian Institution. We are, thus, willing to serve as a clearinghouse for establishing the historical documentation of herps in VA urban areas. If you are interested, please contact Joe Mitchell or Chris Paque. (JCM and CAP)



Tom Roberts/The Richmond News Leader

More than half of the 1.3 million increase in Virginia's population expected by the year 2000 will be concentrated in urban crescent extending from Washington suburbs to Hampton Roads area, according to the report.

#### Recent Herp Talks by VaHS Members

Brian Craig gave a talk on "Reptiles and Amphibians of Virginia" at the Roanoke Valley Science Museum for their Expo '84 (no date was available).

Miscellaneous

The NC State Museum of Natural History has available a poster of poisonous snakes and spiders. It is a very well done poster containing photographs, range maps and misc. information. It sells for \$1.00 and can be obtained from the NC State Museum of Natural History, PO Box 27647, Raleigh, NC 27611.

-23-

#### Books:

Poisonous Snakes, by Tony Phelps, 237 pages, 33 color photos, paperback, \$9.95 from Sterling Publishing Co., Inc., Two Park Ave., New York, NY 10016.

The Care of Reptiles and Amphibians in Captivity, C. Mattison, 304 pages, 48 color photos, \$17.95 from Sterling Publishing Co., Inc., (see above).

Reptiles and Amphibians, J. Palmer, 94 pages, \$6.95 from Sterling Publishing Co., Inc. (see above).

The Life of Desert Reptiles and Amphibians, K. L. Switak, 32 pages all in color, \$4.95 from Karl L. Sitwak, Publisher, PO Box 27141, San Francisco, CA 97124.

Checklist to the Terrestrial Proteroglyphs of the World, P. Golay, 50 pages, \$19.00 from Philippe Golay, PO Box 98, 1219 Aire/Geneve, Switzerland.

The Bacterial Diseases of Reptiles, >100 pages, \$20.00 + \$1.25 postage from The Institute for Herpetological Research, PO Box 2227, Stanford, CA 94305.

Misc. other stuff:

Inventory of live Reptiles and Amphibians in Captivity, current Jan. 1, 1984 is an inventory of public and private collections in 12 countries. It is published by the author. price: \$25.00 (\$20 paper) plus \$2 postage. Write Frank L. Slavens, PO Box 30744, Seattle, WA 98103.

Herp-Osteo, PO Box 324, Canoga Park, CA 91305 (skulls and skeletal mounts).

Southern Illinois Herpetological Society, PO Box 9, Louisville, VA 62858. These folks sell a lot of books and herping supplies. Write for a brochure.

Live crickets - (any size or age), Special introductory offer - 1000 for \$8.00 (plus shipping). Limit one order of 1000 per customer. Jimeny Cricket Farm, PO Box 25658, Richmond, VA 23260-5658.

#### BOOK REVIEW

Phyllis, Phallus, Gengnis Cohen and Other Creatures | Have Known, by Frederic L. Frye, DVM, American Veterinary Publications, Inc., PO Drawer KK, Santa Barbara, CA 93102, \$8.95.

Frye has written a delightful book that shares with his readers a collection of memorable experiences he encountered during his ten years in veterinary practice in Berkeley, CA. Frye is a reptile enthusiast who has laid the basic foundation for herpetological surgery and medicine. He has written two technical books on herp veterinarian practices but this book is a lighter, humorous and witty portrayal of his experiences with animals and people that conveys his compassion for reptiles and his work. This is a refreshing book that will be enjoyed by all animal lovers and herpetologists alike.

submitted by Scott J. Stahl, University of Richmond, Richmond, VA 23173.

-24-

## GENERAL INFORMATION

### VaHS SPRING MEETING

# OLD DOMINION UNIVERSITY, APRIL 13, 1985

<u>Getting there</u>: Out-of-towners will arrive via Int. 64 or US 58/460 (see the accompanying maps). From Int. 64 follow the signs to ODU: take the Granby St. exit and bear right; take the next right exit onto Terminal Blvd; after the 3rd light (1-2 miles) take a left onto Hampton Blvd. and continue south about 3 miles to the ODU campus. Those coming from Portsmouth will follow US 58 thru Portsmouth taking the Midtown Tunnel to Norfolk (sorry, 25¢ toll); keep left while exiting the tunnel which will put you on Hampton Blvd; continue north 1-2 miles to the campus.

The meeting place will be the Mills Godwin Life Science Building. From Hampton Blvd. turn west on 43rd St. Then follow the campus map.

Lodging: There are of course a large number of hotels and motels in the area. Accomodations vary from typical travel lodges to the plush. For those who want the ultimate, there's the Omni International Hotel (Phone (804) 622-6664; double room = \$118) or the Madison Hotel (Phone (804) 622-6682; double room = \$75 and up). Both are in the remodelled downtown area. For the more budget-minded, the Econo Lodge in Portsmouth (Phone (804) 399-3066; double room = \$35) is only 15 minutes from ODU. The Econo Lodge is located at US 58 (Airline Blvd.) jct. US 17 (Frederick Blvd.).

Eating: There are a plethora of eating establishments throughout the area. A list of recommendations will be provided at the meeting.

<u>Program</u>: We will assemble in the Mills Godwin Life Science Building (at ODU) at 10 a.m. for our spring business meeting. After the meeting we will have lunch and then depart for an afternoon (and evening?) field trip to the Dismal Swamp Wildlife Refuge. Collecting will be for the purpose of advancing the biological information on the herps of this magnificent area. All specimens will be deposited in the U. S. National Museum of Natural History. Hopefully we will have the opportunity to photograph many unusual species.

Friday night?: If anyone is interested in assembling Friday evening, please let me know. Arrangements can be made for a social, slide show(s), discussion, or whatever. What do you say?

<u>Sunday</u>?: A second field trip can be arranged for the unique Pine Barrens of Isle of Wight and Southampton Cos. if there is an interest (and of course weather permitting). Let me know so I can make the necessary arrangements.

If you plan to attend, and I hope everyone will, please let me

Chris A. Pague Dept. of Biological Sciences Old Dominion University Norfolk, VA 23508 (804) 440-4123

See you there!

know.

-25-



HAMPTON - 26-

# The Virginia Herpetological Society

A society open to everyone with an interest in the conservation, study and care of reptiles and amphibians

The Virginia Herpetological Society was organized in 1958 to bring together people interested in advancing the knowledge of Virginia's reptiles and amphibians. The VaHS encourages the scientific study of Virginia's herpetofauna and its conservation. Educational activities continue to be important society functions.

Meetings are held twice each year, in Spring and Fall, at different locations throughout the state. The program is open to all members and includes a business meeting and a contributed papers session, during which members present information on their work with reptiles and amphibians, particularly in Virginia. An afternoon field trip usually follows.



The VaHS publishes a bulletin. CATESBEIANA, twice each year which contains articles, news and information on various aspects of Virginia herpetology. Members publish field notes and observations, distributional information and suggestions for improving husbandry techniques. Review articles appear occasionally. Material for inclusion should be sent to the editor, Dr. Joseph C. Mitchell, Dept. of Biology, University of Richmond, VA 23173.



Society dues are \$5.00 per year (\$3.00 for members under 18, and \$7.50 for tamilies).

Inquiries should be addressed to the secretary.

Membership can be initiated at meetings. Dues may be paid at that time.

- President: Bob Bader, Route 2, Box 78, Brookneal, VA 24528
- Vice President: Christopher A. Pague, Dept. of Biological Sciences, Old Dominion University, Norfolk, VA 23508
- Treasurer: Ben Greishaw, 7622 Hollins Rd., Richmond, VA 23229
- Secretary: Laura Crews, 412 Dunmore Dr., Newport News, VA 23602
- Editor: Dr. Joseph C. Mitchell, Dept. of Biology, University of Richmond, Richmond, VA 23173

# Advantages of **VaHS** membership

- available
- herps

• Spring meeting with talks, slides, and field trip

• Fall meeting with lectures, film or workshop

 Society bulletin published twice per year

Extensive research material

 Awareness of current herpetological events

 Opportunity to meet others who share your interest in

 Support of VaHS education and conservation goals



# **Membership Application**

I wish to	🗆 initiate	□ renew	membership in the	Virginia Herpetological Soci	ety for the year 19
Name					
Address _					
					Phone
Dues cate	gory: 🗆 F	Regular (5.00)	□ Family (7.50)	🗆 Under 18 (3.00)	

Make checks payable to the Virginia Herpetological Society and send to the treasurer.



Virginia Herpetological Society

