

THE INCIDENCE OF TREATED SNAKEBITES  
IN THE SOUTHEASTERN UNITED STATES\*

Poisonous snakebite accidents are more frequent in the United States than is popularly supposed.

Fatalities, as a result of the bites, are not as common as many believe; but fatalities do occur.

Poisonous snakebites are more dangerous in older people than in the children, according to the study. Snakebites, however, occur more frequently among children and teen aged young people. The study also tends to support antivenin therapy as reducing the fatality rate in all age groups. The conclusions are based on hospital records of 1,538 inpatients admitted for snakebite treatment during 1958 and 1959. The 1,304 hospitals participating in this study were located in ten states having high snakebite rates -- Arkansas, Texas, Louisiana, Oklahoma, Arizona, North Carolina, Georgia, West Virginia, Mississippi, and South Carolina.

The study was supported by the National Institute of General Medical Sciences, Public Health Service.

State health departments reported 15 snakebite fatalities in the U.S. in 1958; 14 fatalities in 1959. It is estimated that approximately 6,680 persons were treated in USA in 1959 for venomous snakebite. Less than one person in 10 million died from snakebite in the US each year for the two years of study -- 1958 and 1959.

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Digested from an article in the PUBLIC HEALTH REPORTS, Vol.81 No.3, 269-276, by Henry M. Parrish, MD, Dr.P.H., professor and chairman, department of community health and medical practice, University of Missouri School of Medicine.  
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Most bites are on the extremities-- legs (58%) and arms (38%). Upper extremities--the hands and fingers are most often bitten; lower --the ankle and foot. Society members will be pleased to learn that the scale of clinical classification devised by John Thornton Wood, MD, first president of VHS, was used.

Sixty-four percent of the venomous bites were not life-threatening. This helps dispel the popular idea that every bite by a poisonous snake is severe and will be fatal unless treated. The finding should reassure physicians who treat snake bites. Nevertheless, when bitten, a person should not let this statistic keep him from seeking early medical attention.

Highest bite rate per 100,000 was in the 10 to 20 age group; next highest was in 5 to 10 age group.

Since infants face a rougher time in surviving a venomous snake bite it may be reassuring to note that infants 0 to 5 years do not have a high incidence of snakebite.

Geographically, states having a high bite rate are in the southeast and the southwest.

STATE	BITES per 100,000	
North Carolina	18	to 19
Georgia	13	to 14
West Virginia	11	to 12
South Carolina	7	to 8
Virginia . . . .	5	to 6
Maryland	1	to 2
District of Columbia	0	to 1

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TREATED SNAKEBITES IN S.E. US, continued.

Types of snakes represented in the 3,000 cases:

Rattlesnakes	33%
Copperheads	28%
Cottonmouths	8%
Coral Snakes	-1%
Foreign snakes	-1%
Unidentified	29%

Periods during which bites were received:

Seasons:

Infrequent November through March, the peak months for venomous snakebites are July & August.

Time:

The majority of snakebite accident cases occur between 6 A.M. & 9 P.M. While many of the poisonous kinds are nocturnal feeders, people, especially children, simply do not have as much exposure to the possibility of a bite during the period after dark. Percentages of bites received during each three-hour period of the day are:

6 A.M. to 9:00 A.M.	9%
9 A.M. to noontime	17%
Noontime to 3 P.M.	17%
3 P.M. to 6:00 P.M.	23%
6 P.M. to 9:00 P.M.	20%
9 P.M. to midnight	6%
Midnight to 6 A.M.	1%
Time not stated . . . .	7%

This summary of Dr. Parrish's article was presented by Franklin Tobey, VHS Secretary, at the joint VHS-Md. HS meeting at the National Zoological Park, Rock Creek Park, D.C. (May)

Paradoxically, 27% of bites by poisonous snakes resulted in no signs of venom poisoning. Even more surprising, 64% of the bites were not life-threatening.

Comparison of poisonous snakebite deaths with lightning fatalities\*\* in the two-year period covered by Dr. Parrish's study shows:

YEARS	USA (except Alaska and Hawaii)	
	DEATHS FROM SNAKEBITE	DEATHS FROM LIGHTNING
1958	14	104 **
1959	15	183 **

Principal causes of accidental deaths in the year 1959 follow:

Motor vehicles	37,910
Falls	18,774
Burns	6,434
Poisons & gases	2,802
Fire-arms	2,258
Lightning	183

The statistics for accidental deaths during 1959 were taken from U.S. ACCIDENT FACTS, a National Safety Council publication, Chicago, Illinois. FJT

--From the author of the monumental two-volume work on the Rattlesnakes

"I am much impressed with the character and value of amateur periodicals such as VHS Bulletin. I read them with the greatest interest."

L.M. Klauber  
San Diego, Calif.

PART-TIME HERPETOLOGIST DIED  
FROM BITE OF MOHAVE RATTLER:

(Medical Tribune -World Wide Report)

Los Angeles, -- A physician whose spare-time interest in snakes got him a reputation as one of America's leading herpetologists died as the result of a snake bite.

The physician, Dr. Frederick A. Shannon, succumbed at Los Angeles County General Hospital slightly less than two days after he was bitten by a Mohave Rattlesnake while inspecting some private property near the village of Klondyke in eastern Arizona. He was one of four private practitioners at Wickenburg, a town of 2,500, about 50 miles northwest of Phoenix in the western part of the state.

The Mohave Rattlesnake (Crotalus scutulatus scutulatus), according to Dr. Findlay E. Russell, fellow herpetologist and friend of Shannon, is one of the deadliest reptiles in the United States, if not the deadliest. Dr. Russell thought that it probably accounted for many of the 15-odd snakebite fatalities that occur in the United States every year.

Dr. Russell, Associate Professor of Neurosurgery at the Loma Linda University School of Medicine, described the accident this way:

During his walking tour near Klondyke, two miners told Dr. Shannon that they had seen the snake and he decided to capture it. He told two younger relatives with him what kind of snake it was and what to do in case he was bitten. Using a stick, the physician then turned over a stone under which the snake lay. "Then, with extreme viciousness, the snake lashed out and bit Fred on a finger of his left hand." Dr. Russell said. "The snake reached a small vein."

Dr. Shannon staggered toward his car, collapsing as he reached it. He was taken to the small community hospital at Safford, Arizona, an hour away, and there he was immediately given a specific antivenin and two pints of blood. Knowing that Dr. Russell was an authority on snake bite, the physician treating Dr. Shannon arranged an open telephone circuit to him and the two doctors consulted about Dr. Shannon's course over the next 14 hours. During Dr. Shannon's intermittent periods of consciousness, he too gave advice.

Because of Dr. Shannon's continuing decline, Dr. Russell had him flown to L.A. in the County General Hospital ambulance plane. It was clear that he was terminal when he arrived, Dr. Russell said.

Nevertheless, he was immediately taken into surgery where a team of ten physicians began electrocardiography, opened his chest wall for open heart massage and used other heroic measures. The Arizona doctor was pronounced dead about 45 minutes later.

Dr. Shannon, who was born at Mt. Pleasant, Iowa, and received his doctorate from the University of Illinois in 1947, had written many papers on the treatment of snakebite based upon his own research. He was a member of a National Academy of Sciences ad hoc Committee on snake bite under the chairmanship of Dr. Russell. Their report, later incorporated into an Armed Forces desert survival manual, is considered one of the most authoritative on the subject. (Article reprinted with permission from the editors of Medical Trib.)

VHS BUILDING AND MAINTAINING  
A 'DESIRABLE PUBLIC IMAGE'

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Reputations, particularly good ones, are made by the exercise of care and responsibility. - - They are damaged through carelessness and irresponsibility.

The public image the Society's officers have carefully nurtured is a special one. In the building of this good image the VHS officers have had the support of the members, and a lot of luck.

In its conduct of a statewide study of Virginian reptiles and amphibians, VHS has emphasized the scientific, educational, conservation, and safety aspects. The Society has called for care and responsibility in connection with collecting and studying the lower vertebrates and care in exhibiting and handling those that are venomous.

It is not by accident that VHS maintains a balance between student and adult memberships. Our adult members provide a steady, encouraging influence which offsets the occasional bursts of over-enthusiasm, or so we hope.

Members should strive to bring their knowledge of their areas of interest -- herpetology and other related or complementary sciences or arts -- into line with their own innate intellectual capacity.

VHS reaches a 'public'. Though it may be a limited audience it's a segment of the public no less. Let's all work to keep a good VHS image before the public.

Fortunately, members have avoided a long list of (often preventable) events which would reflect on their own good judgment and, at the same time, damage the public image of VHS. Among these are: careless and indiscriminate handling of snakes; escape of large or potentially dangerous snakes in urban or suburban neighborhoods, buses, etc.; or the releasing of numbers of specimens in residential areas where the snakes can't find a natural habitat; inhumane treatment of captive animals; lack of proper respect for human life and safety as reflected by improper handling of venomous snakes, violation of state, county, municipal or community ordinances through housing poisonous species without a scientific justification, thereby risking an increase in the number of snakebite accidents.

Note how low the incidence of poisonous snake bite is (or was) in Virginia in 1958-1959! Let's keep it way down there and, if possible, assist in lowering the incidence in Virginia and in our neighboring states -- to the south and west.

OBJECTIVES OF VHS:

- (1) Study of Virginia's reptiles and amphibians;
- (2) Improvement and verification of collecting records, data;
- (3) County surveys and exchange of verified information;
- (4) Broader public understanding;
- (5) Depositing of needed specimens in scientific collections
- (6) Increased accuracy in reports on reptiles and amphibians in the newspapers and magazines.

VHS STATEWIDE MEETING 1966  
CAMP BRADY SAUNDERS, BSA, OFF  
ROUTE No.6, NEAR GOOCHLAND, VA.

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You are invited to attend the VHS annual statewide meeting this fall. October 15-16, 1966. VHS families and friends are welcome.

This will be an important occasion in the history of the VHS:

Directions for reaching the campsite are provided below.

**EXHIBITS:** We will want to set exhibits up early. Virginian and Carolinian species together in an area separated from "overseas" or non-regional specimens. An area will be designated for Virginian and non-Virginian varieties. All cages are to be properly labelled and either locked or sealed with a masking tape to prevent escape.

Cages, vivariums, aquariums, terrariums, etc. must be supplied by the exhibitor. Cages must be SAFE and SECURE. A Health and Safety Committee of senior VHS or college faculty members will tour the exhibit to inspect all cages.

Registration of all members & specimens will be accomplished in order to further assure that mix-ups will be cut to a minimum.

Any fragile or valuable items to be exhibited should be placed in a suitable protective case or locked exhibition showcase to insure survival.

Sale or trading of venomous snakes will be restricted to the adult members--college age or above. Minors will not handle or trade poisonous specimens.

A 2" X 2" slide projector and a 16 mm, sound projector for motion pictures will be brought to the Statewide meeting. If you need any other type of equipment to present your discussion please bring it.

VHS hopes that interested senior scouts and scouters (leaders) will join in the VHS meeting and visit the discussions and live exhibits.

Reptile Study Merit Badge Counselors, or any scouts who hold, or are working on Reptile Study, are welcome to participate actively.

Bedroll and blankets will be in order if you plan to stay overnight at the camp, or at a nearby campground or state park. Each party will be responsible for its food & cooking for the number of meals in the period. This should be about five meals: lunch and supper on 15 and breakfast, lunch and supper on Sunday, October 16. No camp mess-hall facilities are to be used.

Permission to use Camp Brady Saunders was granted to VHS by the Robert E. Lee Council, BSA, camping committee. VHS will use only those areas designated by the Camp Ranger and the VHS statewide meeting chairman, Mr. Robert J. Gagnon and deputies:

LET US, PLEASE, LEAVE THE CAMP IN BETTER CONDITION ON SUNDAY EVENING (BY 6:00 PM) THAN WE FOUND IT ON SATURDAY MORNING-- IF THAT IS POSSIBLE. IT IS A NEW CAMP AND ITS USE IS A FINE PRIVILEGE -- NOT A RIGHT.

Rest areas for MEN and WOMEN will be provided and marked. Courtesy will be accorded all who attend. We will have the usual sprinkling of college and university faculty, scout executives, physicians, and others; please be respectful.

STATEWIDE MEETING PROGRAM '66Saturday, October 15:

- 10:A.M. Move into camp and set up tent for overnight.
- 11:A.M. Set up EXHIBITS. Cages must be sound, escape-proof. Lock or seal.
- Label all exhibits.
- Noon: Lunch (box lunch)
- 1:P.M. Registration: Fee \$1 for each non-member or member in arrears. Fee will be credited to '66 dues.
- 2 to 3 P.M. Committee assignments: health & safety, exhibits, clean-up, and collecting.  
Comments upon VHS program, bulletins, news, activities, etc.
- 3 to 6 P.M. Small collecting groups active until the evening meal.
- 7: P.M. Discussion and Slides: Introductions; films.
- 10: P.M. VHS Officers' Call; key adults invited to join in organizational talks. Discussion of VHS plans.

Sunday, October 16:

- 9:A.M. Herpetology roundtable discussions and distribution data for Survey.
- Organization of small collecting groups and designation of areas for hunting. Each of the groups to be lead by qualified adults.
- 12:30 P.M. Lunch
- 2:00 P.M. Discussion groups
- 4:00 P.M. Begin closing down exhibits; check out.
- 6:00 P.M. All members should clear Camp.
- Before departure from Camp the exhibit area committee and the clean-up committee will check the exhibit and camping areas, respectively, and these areas will be inspected before VHS members depart from the camp.
- Each member should bring a brief report on his activities and planned projects. Any of these may be submitted for use in the VHS Bulletin,

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- 6 -

**NON-CAMPERS:** The Richmond area has excellent motel or tourist accommodations to suit all needs. Each family or individual must arrange their own accommodations.

**MEETINGS:** Bring cushions or folding chairs for your comfort.

Dr. James L. Chamberlain, vertebrate zoologist and faculty member at Randolph-Macon Woman's College for the past eight years is leaving the area this summer. Dr. Chamberlain has served as President of VHS for the past two years. In the Spring, 1965, he launched the VHS state survey. VHS has been both privileged and honored to have had Dr. Chamberlain for its fourth President. Vale! Jim.

REGISTRATION FORM FOR PHS FIRST ANNUAL REPTILE SHOW

Complete and mail to Mrs. Jeanne Couch, Membership Secretary  
PHILADELPHIA HERPETOLOGICAL SOCIETY (PHS)  
130 E. Street Road  
Johnsville, Pa. 18974

Registration form must be received by September 23, 1966.

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Name of Exhibitor -----

Address -----

City & State -----

Specimens being exhibited:

(1) Common name:

Scientific name:

(2) Common name

Scientific:

(3) Common name

Scientific:

(4) Common name

Scientific:

(5) Common name

Scientific:

If additional specimens are being exhibited, supply information on a separate piece of paper.

Be sure to include \$1.00 registration fee for each five specimens being exhibited. This Show for Reptiles\*only. Categories include Snakes, Lizards, Turtles, and Crocodilians.\*(NonPoisonous)

PAGE TO UP-DATE ROSTER OF VHS  
MEMBERS CARRIED IN VHS-B #46:

*AGNEW, Mr. Lawrence 102 Damascus Drive Richmond, Va. 23227	*JOHNSON, Dr. Virgil O. 6302 Kellogg Drive McLean, Va. 22101	*SIMMONS, Mr. C. Wm. 909 Maryland Avenue Va. Beach, Va. 23451
*ANDREWS, Capt. M. F. Randolph-Macon Acad. Front Royal, Va. 22630	*KNAPP, Mr. G. Leonard High Street (PHS) Dublin, Penn. 18917	*SNELLINGS, Mr. E. H. L. 2526 Chain Bridge Road Vienna, Va. 22180
*BREWSTER, Miss Mary 2236 No. Buchanan St. Arlington, Va. 22207	*KRICHBAUM, Steve 412 Carter St. (AGSTA) Staunton, Va. 24401	*SOUTHALL, Mr. L. Earl 12551 Parker Lane (CHFLD) Chester, Va. 23831
BULLARD, Dr. A. J. (DDS) 103 Smith Chapel Rd. Mt. Olive, No. Car. 28365	*KURFESS, CDR J. F., USN 4201 Hatton Court Alexandria, Va. 22311	*SOUTHALL, R. Leslie 12551 Parker Lane (CHFLD) Chester, Va. 23831
CAMPBELL, Mr. Ronald A. Univ. of Richmond (Bio) Richmond, Va. 23173	*MEARS, Ralph, Jr. 424 E. Lorengo Ave. Norfolk, Va. 23503	*THOMAS, Dr. Erhard (Zool) Inst. für Physiol-Zool. J. Gutenberg University Mainz, Fed. Repub. Germany
*CHAMBERLAIN, Dr. J. L. Utica College (Biol) Utica, N. Y.	*MULLER, Mr. H. B. (Nat) 3001 Timberlane Ave. Roanoke, Va. 24015	*TINGLE, W. A., Jr. 2547 Beverly Blvd. Roanoke, Va. 24015
*COOPER, Dr. John E. Univ. of Kentucky (Bio) Lexington, Ky. 40506	*MURRAY, Dr. J. J., Jr. Bentivar, RFD #4, Bx 150 Charlottesville, Va. 22901	*TOMB, Mr. David A. Va. Inst. of Mar. Sciences Gloucester Pt., Va. 23062
*FISHER, Mr. Elwood (B-2) Draper Meadow Terrace Blacksburg, Va. 24060	*POWERS, Bill (BDFD) Route # 1, Bedford, Va. 24523	*TUCK, Mr. Robert G. (W-202) U.S. National Museum, A&R Washington, D.C. 20560
*GOETZ, Mr. Paul F., Sr. 14525 SW 292d Street Leisure City, Fla. 33030	*REDMOND, Mr. Jack 1408 W. Nash Street Wilson, N.C. 27893	*WALKER, Mr. Wallace H. 5315 Massachusetts Av NW Washington, DC 20016
*GOODWIN, Mr. Peter S. Box 75, Thurmont, Maryland 21788	ROTHMAN, Mrs. Norma 7036 Rising Sun Ave. Philadelphia, Pa. 19120	*WEINKSELBAUM, Mr. S. 3010 Clarendon Road Brooklyn, N.Y. 11217
*HAHN, Mr. Richard A. Jungleland Serp (MHS) Bx 75, Thurmont, Md 21788	*SANDERSON, A3C Richard AF13891495 Box 3961 Edwards AFB, Cal. 93523	*WIGINGTON, Mr. Jim 3207 Collingwood Roanoke, Va. 24012
*HATHAWAY, Mr. John S. Bx 789, Univ. of Richmond Richmond, Va. 23173	*SATTERFIELD, Paul Rt. #5, Box 26 Fairmount, W. Va.	*WITT, A1C William L. Detach 10, 11th RBS Gen. Del. Bismarck, North Dakota, 58501
*JENNINGS, Mr. Robt. D. 3208 Patterson Ave. Richmond, Va. 23221	*SILSBY, Sp4 Scott K. RA13765828 Co. B 5/7 Cav. 1st Air Cav. APO 96490 San Francisco, California 96490	*YOUNG, Mr. W. F. (Sci. Spvr) 1101 Court St. (AMHT) Lynchburg, Va. 24504

File with VHSB#46: