Virginia Herpetological Society NEWSLETTER

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IN THE NEWS . . .

Reptile Declines Documented Worldwide

Sources: Conservation International; Environmental News Network; Environmental News Service; Partners in Amphibian and Reptile Conservation; USFWS; USGS; VDGIF

Press releases in September of 2000 revealed disturbing but not altogether surprising news for conservationists; amphibians are not the only herpetofauna in peril throughout the world. Reptile populations worldwide are showing signs of even greater distress than amphibians. According to the U. S. Fish and Wildlife Service, 26 species of amphibians and 88 species of reptiles are listed under the Endangered Species Act. The World Conservation Union lists 129 amphibian species and over 270 reptile species as vulnerable or endangered globally.

Factors that have put reptiles at risk are similar to those documented for amphibians. Examples are habitat loss and degradation, pollution, disease, exotic species invasions, overexploitation, and global climate change.

Scientists have known for many years the effects of specific threats to amphibians such as deforestation, wetland draining, and pollution from agricultural run-off. Now, however, scientists recognize such threats as equally detrimental to reptiles that are also rendered defenseless in the face of such disturbances. Also, reptiles typically require larger home ranges, and therefore are more susceptible to the negative effects of habitat fragmentation than amphibians. Internationally, reptiles are in higher demand as sources of food, medicine, other consumer items, and as specimens for the pet trade than ever before. Finally, all of these human-related threats are magnified in light of the slow rate of maturity and slow reproductive

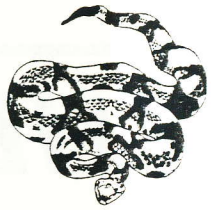
rate of many reptile species—populations are being exploited faster than they can be replaced.

In Virginia, 13 out of 72, or 18% of our native reptile species are listed as either state and/or federally endangered, threatened, or species of special concern. A few examples of these listed reptile species are Northern pinesnake, Eastern glass lizard, canebrake rattlesnake, Eastern chicken turtle, and Northern diamond-backed terrapin.

What can Virginians do to help conserve our native reptiles? A few ideas include:

- educate your families, neighbors, and friends about the value of reptiles in the ecosystem,
- manage areas of your property to serve as reptile habitat,
- avoid collecting native species from the wild, and
- if possible, avoid killing reptiles crossing the road.

Among their many values, reptiles, like amphibians, are indicators of environmental health because of their significant role in the ecosystem. The question of whether people will listen to the message they are sending still remains to be seen.



ANNOUNCEMENT!

VHS 2001 SPRING MEETING AND ANNUAL SURVEY

This year we will be surveying two distinct habitat units on the George Washington-Jefferson National Forest in Augusta County. The Loves Run Pond complex is a series of seasonal and perennial sinkhole ponds near the Maple Flats complex. As with the Maple Flats ponds, a number of plant and animal species generally associated with the Coastal Plain and/or the lower Piedmont have been found in the Loves Run Pond complex. The second primary survey area, Green Pond, is located at an elevation of approximately 3200 feet and is adjacent to the St. Mary's Wilderness Area.

Schedule:

Friday May 18, 2001

7:00 PM	Business meeting at the Augusta County Government Center in Verona
7:45 PM	Break (with snacks and drinks provided)
8:00 PM	Slide show of potential species, and initial coordination meeting for survey on Saturday
8:45 PM	Adjourn

Saturday May 19, 2001

8:00 AM	Meet at Lake Sherando to coordinate Survey NOTE: Due to the nature of survey locations this year, it is important to attend this meeting prior to heading out for survey.
8:30 AM	Break into survey groups and travel to designated survey locations

8:30 AM	Break into survey groups and travel to designated survey locations
12:30 PM	Free to survey outside of initial survey locations
5:30 PM	Meet at Lake Sherando outdoor pavilion to compile survey reports, compare adventures, as well as photo op of collected specimens

Accommodations:

- Numerous hotels/motels are located in Waynesboro, Verona, or Staunton, with Waynesboro being closest to the survey locations.
- Camping is available at Lake Sherando and numerous other locations in the National Forest.

Directions to Augusta County Government Center, Verona, Virginia:

Take I 64 to Exit 225 – Woodrow Wilson Parkway. Left on Woodrow Wilson Parkway (Route 275). Go 1.5 miles to Lee Highway (first light). Right on Lee Highway (US 11). Go 1 mile to right on Dick Huff Lane. Look for Government Center and VHS signs.

Directions to Lake Sherando:

Lake Sherando is located off Route 664 in Augusta County. It can be accessed via I 64 or I 81. We will have signs in the Sherando Recreation Area directing VHS members where to meet.

Equipment list:

- Sampling equipment: insect repellent, taxonomic identification guides, waders, seines, dip nets, collection jars/bags, snake stick, snake bag. camera.
- Rain gear and other clothing suitable for changeable May weather

Note: We have been asked by U.S. Forest Service personnel to follow appropriate equipment cleaning procedures prior to entering the survey locations. This includes thorough cleaning of dip nets, waders, etc.

Potential Species List for the Region

Ambystoma jeffersonianum	Jefferson salamander
Ambystoma maculatum	Spotted salamander
Ambystoma opacum	Marbled salamander
Ambystoma tigrinum	Eastern tiger salamander
Desmognathus fuscus	Northern dusky salamander
Desmognathus monticola	Seal salamander
Eurycea cirrigera	Southern two-lined salamander
Eurycea guttolineata	Three-lined salamander
Eurycea longicauda longicauda	Longtail salamander
Gyrinophilus porphyriticus	Spring salamander
Hemidactylium scutatum	Four-toed salamander
Notophthalmus viridescens viridescens	Red-spotted newt
Plethodon cinereus	Red-backed salamander
Plethodon cylindraceus	White-spotted slimy salamander
Pseudotriton ruber	Red salamander
Acris crepitans crepitans	Eastern cricket frog
Bufo americanus americanus	Eastern American toad

Bufo fowleri	Fowler's toad
Hyla versicolor	Gray treefrog
Pseudacris crucifer crucifer	Northern spring peeper
Pseudacris feriarum	Southeastern chorus frog
Rana catesbeiana	Bullfrog
Rana clamitans	Green frog
Rana palustris	Pickerel frog
Rana sylvatica	Wood frog
Scaphiopus holbrookii	Eastern spadefoot
Chelydra serpentina serpentina	Eastern snapping turtle
Chrysemys picta picta	Eastern painted turtle
Clemmys guttata	Spotted turtle
Kinosternon subrubrum subrubrum	Eastern mud turtle
Sternotherus odoratus	Eastern musk turtle
Terrapene carolina carolina	Eastern box turtle
Cnemidophorus sexlineatus sexlineatus	Eastern six-lined racerunner
Eumeces anthracinus anthracinus	Northern coal skink
Eumeces fasciatus	Five-lined skink
Eumeces laticeps	Broad-headed skink
Sceloporus undulatus hyacinthinus	Northern fence lizard
Scincella lateralis	Little brown skink
Agkistrodon contortrix mokasen	Northern copperhead
Carphophis amoenus amoenus	Eastern wormsnake
Coluber constrictor constrictor	Northern black racer
Crotalus horridus	Timber rattlesnake
Diadophis punctatus	Ring-necked snake
Elaphe guttata	Corn snake
Elaphe obsoleta	Black ratsnake
Heterodon platirhinos	Eastern hognosed snake
Lampropeltis calligaster rhombomaculata	Mole kingsnake
Lampropeltis getula	Common kingsnake
Lampropeltis triangulum triangulum	Eastern milksnake
Liochlorophis vernalis	Smooth greensnake
Nerodia sipedon sipedon	Northern watersnake
Opheodrys aestivus	Rough greensnake
Pituophis melanoleucus melanoleucus	Northern pinesnake
Regina septemvittata	Queen snake
Storeria dekayi dekayi	Northern brownsnake
Storeria occipitomaculata occipitomaculata	Northern red-bellied snake
Thamnophis sauritus sauritus	Eastern ribbonsnake
Thamnophis sirtalis sirtalis	Eastern gartersnake
Virginia valeriae	Smooth earthsnake

ANNOUNCEMENT FOR VHS MEMBERS

PROPOSED AMENDMENTS TO THE VHS BY-LAWS

ARTICLE II. The Officers

Section 1.

a. The elected officers shall be President, ~~President-Elect~~, Vice-President, Secretary-Treasurer, Secretary/Treasurer, and the immediate Past-President.

Section 4. The duties of the elected officers shall be as follows:

a. The president shall preside at meetings of the Society and its officers; shall be nominal head of the Society; shall rule on questions of procedure that may arise; shall appoint ad hoc committees at his/her discretion; the ~~President or his/~~her designee ~~shall be the VHS representative to the Eastern Seaboard Herpetological League voting board.~~

b. The ~~President-Elect~~ Vice-President shall fulfill the duties of the President when the latter is absent. He/she shall assume the Presidency should that office become vacant during a term. He/she shall select coordinate the meeting activities sites for the Society. ~~The~~ President-Elect ~~shall assume the Presidency for a two~~ year ~~term upon expiration of the current President's term.~~

ARTICLE III. The Executive Council of the Society

Section 1. The Executive Council of the Society shall consist of the President, President-~~Elect, Vice-Pres~~ident, Secretary/Treasurer, immediate Past-president, the Editor(s) of the Society's Publications, and chairpersons of the standing committees.

~~Section 4.d. The President will appoint member(s) to fill vacated~~ office(s) until ~~the next scheduled election.~~

As discussed at the Spring and Fall 2000 meetings, the proposed changes in the by-laws regarding VHS officers will allow members such as students to be able to serve as VHS President or Vice-President without obliging to a six year commitment.

Elimination of Article II Section 4.d. of the by-laws will remove one of two mutually exclusive conditions currently in the bylaws, thus leaving Article III. Section 3. charging the EXCOM with filling any vacant offices.

Membership will be asked to vote on the proposed amendments to the VHS by-laws at the spring 2001 meeting. If membership votes in the affirmative the newly amended

by-laws will be published in the fall 2001 Newsletter. VHS officers will be elected as described in the amended by-laws at the fall 2001 meeting.

HERP  HAPPENINGS

VHS Fall Meeting and Symposium - The fall meeting was held at the nature center at Wintergreen Resort on October 27, 2000. The business meeting included minutes of the spring 2000 meeting and reports and updates from officers and editors of the newsletter, *Catesbeiana*, and the website. Members present discussed proposed amendments to the VHS bylaws. Other topics included membership outreach, possible sites for the spring meeting and survey, and an update on the VHS donation to the forthcoming Virginia snake guide. Other events of the day included a teachers' workshop, a silent auction, a raffle, and a chili lunch. The VHS thanks the staff at the Wintergreen Nature Center for their help in organizing the day.

Paper Session – The following people gave presentations during the fall meeting. Thomas Akre of Fairfax, VA, Matt Wold of Montross, VA, Chris d'Orgeix of McCoy, VA, Michael Hayslett of Lynchburg, VA, and David Marsh of Lexington, VA. Topics included current wood turtle research, amphibian and reptile intelligence, reproductive behavior of tree frogs in Panama, mole salamander research in Virginia, and notes from tropical herpetofauna research. The VHS thanks everyone who gave presentations. During the session, Mike Pinder was recognized for his contributions and service as VHS President (1997-1999) and newsletter editor (1994-1999). He was presented with a plaque commemorating this honor.

Wood Turtle Survey – During the months of September through November biologists from George Mason University and VDGIF surveyed for wood turtles at known sites in northern Virginia. Three pairs of turtles were observed mating in November. The totals for individuals captured last fall are: 22 recaptures and 34 new turtles (including at least 9 juveniles). All new turtles were marked and released, and all turtles captured were measured and weighed. Habitat data were collected as well.

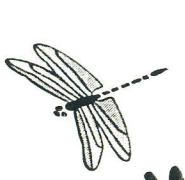
Virginia Snake Brochure – The long-awaited Virginia snake brochure is finally on schedule to be released this spring. Mike Pinder and Joe Mitchell's full-color guide is anticipated as one of the premier snake publications of its kind. Professional photography, accurate, succinct biological information and identification keys, a focus on conservation issues, and answers to common snake questions highlight this guide which will surely be a hit with all ages.

Project Bog Turtle Meeting – Project Bog Turtle is part of the North Carolina Herpetological Society and is a conservation group dedicated to preserving bog turtles in the southern population. State and federal agencies, private researchers and biologists, and concerned citizens from North Carolina, Virginia, Tennessee, Georgia, and South Carolina are represented in this group. An annual meeting was held December 18, 2000, at the U.S. Fish and Wildlife Field Office in Asheville, NC. The meeting consisted of updates from individual states regarding current bog turtle conservation efforts, a presentation on analyzing bog turtle DNA to determine genetic diversity of populations, and wetland leasing (conservation easements) to protect known populations. Other topics discussed were the use of PIT tags (Passive Integrated Transponder) to identify and track individual turtles more easily, reactions to the Federal Recovery Plan that was recently issued, and strategies for future surveys. For more information on Project Bog Turtle and how you can help conservation efforts, log onto **http://www.projectbogturtle.org** or e-mail Dennis Herman of the North Carolina Museum of Natural Sciences at: dennis.herman@ncmail.net.

Hellbender Display – In September biologists from VDGIF displayed a live hellbender in an exhibit at the Cedar Bluff Festival in Cedar Bluff, VA. Hellbenders are well-known from the Clinch River, which flows through this southwestern Virginia town in Tazewell County. Biologists displayed the live specimen,

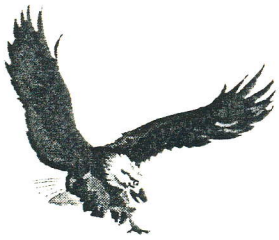
handed out information sheets, and answered a multitude of questions from festival-goers. The overall goal was to educate the public about the sensitive status of this species and its role in the ecosystem, hopefully instilling an ethic of conservation in anglers and others who cross paths with hellbenders in the river.

Virginia Anuran Calling Survey – Many routes in Virginia are still available for surveying frog and toad calls for spring and summer 2001. Last year 33 out of 50 possible routes were surveyed. Volunteers drive routes and stop along the road at designated spots to listen and identify frog and toad calls. For more information or to volunteer for an available route for this year, contact Don Schwab at (757) 253-7072 or at dschwab@dgif.state.va.us.



Wild for Wildlife Days

June 23 - 24, 2001
at
Front Royal 4 -H Center




The Virginia Department of Game and Inland Fisheries Wildlife Diversity Division is hosting its second annual Wild for Wildlife Days, a special event focused on the Commonwealth's wildlife. The family-oriented celebration will be held on June 23-24, 2001 at the Northern Virginia 4-H Education and Conference Center in Front Royal, Virginia. There will be classes on birds, backyard wildlife, woodcarving, plant identification, river life, reptiles, wildlife rehabilitation, bats, nature photography, hiking and much more. Classes will be interactive and mostly outdoors. Many classes will include live animals, field trips, and take-home material. Professional biologists will be available to answer your wildlife-related questions. Exhibitors from a wide variety of nature and outdoor organizations will also be in attendance.

Pre-registration if received by June 12, 2001 is $25/family, $10/adults, and $5/children 7 to 12 years old. Registration after June 12, 2001 and on event day is $40/family, $15/adults, $8/children 7 to 12 years old. Children 6 and under are free regardless of registration deadline. Registration covers the entire weekend. For more information see our web page at www.dgif.state.va.us or call (804) 367-8999.

COME OUT AND GET *WILD* FOR WILDLIFE!!!

Sponsored by the
Virginia Department of Game and Inland Fisheries
Wildlife Diversity Division

ANNOUNCEMENT FROM THE VIRGINIA NATURAL HISTORY SOCIETY

Members of the Virginia Herpetological Society are invited to join the Virginia Natural History Society (VNHS). This society was formed in 1992 to bring together persons interested in the natural history of Virginia; its goals are to promote research on the natural history of Virginia, educate the citizens of the Commonwealth on natural history topics, and to encourage the conservation of natural resources. Annual dues are $15.00 (per calendar year), library subscriptions are $30.00; checks should be made payable to the Virginia Natural History Society and sent to: Anne C. Lund, VNHS Secretary/Treasurer, Department of Biology, Hampden-Sydney College, Hampden-Sydney, Virginia 23943. Members of the VNHS receive two issues of the peer-reviewed journal *Banisteria* each year. Back issues of *Banisteria* are also available for sale. The 16 issues of *Banisteria* published through 2000 have contained more than 1,000 printed pages concerning the flora and fauna of Virginia, including 26 papers (see full list of titles below) concerning the amphibians and reptiles native to the state. The current co-editors of *Banisteria* are Joe Mitchell and Steve Roble. For more information about the VNHS, including the titles of other published papers, visit this website: **http://fwie.fw.vt.edu/vnhs/** .

Herpetological papers published in *Banisteria* (1992-2000):

Invertebrate prey of *Bufo woodhousii fowleri* (Anura: Bufonidae) from a Virginia barrier island

Timber rattlesnakes (*Crotalus horridus*) in Prince William Forest Park: released captives or native population?

Male combat in copperheads (*Agkistrodon contortrix)* from northern Virginia

Eastern tiger salamander *(Ambystoma tigrinum tigrinum)* rediscovered in York County, Virginia

An unusually colored northern water snake *(Nerodia sipedon sipedon)* from Giles County, Virginia

Abnormal coloration in a common snapping turtle (*Chelydra serpentina serpentina*) from Virginia

Natural history notes on the amphibians of a recently extirpated suburban wetland in central Virginia

Injury of a northern watersnake (*Nerodia sipedon sipedon*) in a mountain stream during severe flooding

Another case of albinism in a black rat snake (*Elaphe obsoleta obsoleta*) from Virginia

Records of anurans from Greensville County, Virginia

Winter records for the snapping turtle, *Chelydra serpentina* in Virginia

Predation of marbled salamander (*Ambystoma opacum* [Gravenhorst]) eggs by the milliped (*Uroblaniulus jerseyi*)

Ecological notes on the amphibians and reptiles of the Naval Surface Warfare Center, Dahlgren Laboratory, King George County, Virginia

Juvenile green turtles (*Chelonia mydas*) stranded by cold in the Chesapeake Bay

Annotated checklist of the amphibians and reptiles of Fort A. P. Hill, Virginia and vicinity

Notes on the distribution and ecology of some amphibians and reptiles in southeastern Virginia

Observations on nesting by a fence lizard, *Sceloporus undulatus hyacinthinus*, in Virginia

A new technique to monitor larval and juvenile salamanders in stream habitats

Amphibians and reptiles of the Shenandoah Valley sinkhole pond system in Virginia

Streamside salamanders in an acidic Blue Ridge Mountain stream: historical comparisons and relative abundance

Amphibian diversity in three montane streams with different levels of acidity, Shenandoah National Park, Virginia

Distribution of the dwarf waterdog (*Necturus punctatus*) in Virginia, with comments on collecting techniques

Mass mortality of red-spotted newts (*Notophthalmus viridescens*) on a central Virginia road

Aggregations of red-spotted newts (*Notophthalmus viridescens*) in the Shenandoah Valley of Virginia

Notes on amphibians and reptiles in riparian and upland habitats on Fort A. P. Hill, Virginia

Amphibian and reptile diversity of a threatened natural area in central Virginia

VIRGINIA NATIVE

Wood Frog *Rana sylvatica sylvatica*

Photo Credit: John White; http://www.erols.com/reptiles/

Status: Nongame - Protected

Characteristics

This medium-sized frog is also known as the "frog with the robber's mask," describing the black streak on both sides of the head that extends from the snout, through the eye, towards the neck. Adult wood frogs are 34-60 mm long; females are slightly larger than males. Dorsal color ranges from a light reddish-brown or copper color to various shades of pink and brown. Ventral color is white with a dark bar on the upper arm. Wood frogs have long legs, striped with crossbars.

Habitat and Food

Wood frogs occupy moist, wooded areas and eat beetles, flies, and other insects. They hibernate in logs, stumps, woody debris, under stones, or under other objects near the woods. Wood frogs use leaf litter in small ponds and ephemeral pools for breeding sites.

Distribution

North American distribution includes Wisconsin and parts of Minnesota south to Arkansas, Tennessee, and northern South Carolina, through the Appalachians to southeastern Canada. In Virginia, wood frogs are primarily found in mountain counties from the Blue Ridge west and in a few northern Coastal Plain counties. Piedmont distribution is sparse, and no records have been reported for the southcentral to southeastern parts of the state.

Reproduction

One of the earliest species to appear in the spring, male wood frogs start singing in February and March to attract females, often before aquatic breeding sites thaw completely. Males make a short, snappy, hoarse, clacking sound, much like a duck quacking. Known as explosive breeders, wood frogs mass breed in ephemeral pools or ponds, and females lay up to 3,000 eggs all in a couple of days. Egg masses are attached to grasses, weed stalks, or woody debris. After breeding, adults disperse away from water. Survival of young is estimated at 4%. Tadpoles are deep olive in color and metamorphose in 44-85 days.

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Literature Review

The purpose of this column is to inform members of recent herpetological research pertinent to Virginia or of special interest to the Society's membership. Papers or notes from professional journals, new books, "gray literature" reports, and popular magazine articles are acceptable for inclusion. Members are encouraged to send recently published items of interest to the editor. Submissions will be accepted to the approval of the editor.

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