



Virginia Herpetological Society Newsletter

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Electronic format for newsletter!

Please send any updated e-mail address information to Paul Sattler at psattler@liberty.edu

VHS Fall Meeting in Lynchburg

The VHS will have its fall meeting on October 25, 2003 at Liberty University. This is a very important meeting due to the elections that will be held. We will elect a new president, vice president, and secretary/treasurer. As part of this meeting, we will have an educator's workshop, business meeting, and a paper session. This meeting will also feature a silent auction and photo contest. The teacher's workshop will last from 8:00 to 12:00. Teachers from surrounding counties will be invited to participate. Anyone interested in helping can contact Jason or John. Anyone interested in giving a 15-20 minute presentation should contact Jason Gibson by September 25th. More information and directions will appear in the next issue of *Catesbeiana* and on the VHS website.

Wet and Wild in Greensville County VHS Spring Meeting Results

The Virginia Herpetological Society's spring meeting was held on May 20 – June 1 in Greensville County. A fairly wide variety of habitats were sampled though unusually high water and low land made some efforts more difficult. Thanks to all who participated in this year's survey and special thanks to Jason Gibson and his family for coordinating the event and allow the

invasion of herpetologist on their property. In total we found 36 species (14 anurans, 5 salamanders, 8 snakes, 6 turtles, and 3 lizards). More details of the surveys findings will be published in the next *Catesbeiana*.

VHS - DIGITAL IMAGE LIBRARY

by John White

The Virginia Herpetological Society in cooperation with the University of California Berkeley Digital Library Project (CalPhoto) has developed an online image database to store VHS photographs. The database includes a user interface with both simple and custom query search functions. CalPhoto is located at: <http://elib.cs.berkeley.edu/photos/fauna/>

In the "Collection" drop down menu select "VHS".

Visit this website to add photographs to the VHS Digital Image Library:

<http://elib.cs.berkeley.edu/photos/contributions.html>

Follow the sign-up procedure, but place a note in Box #9 stating that you are associated with the VHS collection.

The photographer retains the copyright on all of his or her images. The majority of contributing photographers allow educational, noncommercial use of their images as long as credit is given. For

commercial use, the interested party is directed to the photographer. For additional information see:



<http://elib.cs.berkeley.edu/photos/use.html>
<http://elib.cs.berkeley.edu/photos/faq.html>

In the future, photos stored within the CalPhoto VHS Collection will be linked (accessible) via the VHS website. For an example see: *Hyla squirella* (Squirrel Treefrog) at (photo above by Jason Gibson)

http://fwie.fw.vt.edu/VHS/frogs_and_toads_of_virginia.htm

Amphibians and Reptiles of Delmarva now available

Jim White and Amy Wendt White, a husband-and-wife team from the Delaware Nature Society, spent nearly 15 years combing the region's swamps, woods, and fields. The result of their work is **Amphibians and Reptiles of Delmarva** listing 73 species.

Each species account contains descriptions of physical characteristics, comparisons to similar species, and information on the geographical distribution, abundance, habitat, reproduction and development, and behavior.

It currently sells for \$14.95. More information is available at:

<http://www.delawarenaturesociety.org/merchandise/reptilebook.htm>

Just the facts, ma'am, just the facts: a summary of the laws, regulations, and guidelines maintained by the VDGIF that pertain to reptiles and amphibians

In light of the recent raids and charges against herp dealers and owners in the Midwest, I decided to put together a review of the state regulations and permits administered by the Virginia Department of Game and Inland Fisheries (VDGIF). One element of the Department's mission is "to manage Virginia's wildlife

and inland fish to maintain optimum populations of all species to serve the needs of the Commonwealth". One of the many ways the Department reaches for this goal is through the development and enforcement of laws, regulations, and guidelines governing the collection, holding, exhibiting, and release of wildlife. Below is a summary of some of the relevant information for herp enthusiasts:

1) Possession, importation, sale, etc. of wild animals
 It is unlawful to take, possess, import, cause to be imported, export, cause to be exported, buy, sell, offer for sale, or liberate within the Commonwealth any wild animals unless otherwise specifically permitted by law or regulations. For instance, it is unlawful for pet stores or individuals to sell native species of wildlife except under special permit which allows the propagation and sale of eastern and mole king snakes, corn snake, bull frog, green frog, and southern leopard frog. It is also unlawful to collect animal parts, such as feathers, claws, bones, and antlers without a permit.

2) Taking aquatic invertebrates, amphibians, reptiles, and nongame fish for private use
 It is lawful to collect and possess live for private use only and not for sale no more than 5 individuals of any non-listed species of amphibian and reptile, and no more than 20 individuals of any non-listed species of aquatic invertebrate and nongame fish. Private use means for use in the home, not for scientific or educational purposes (these uses require permits, see below).

3) Release of wildlife
 Wildlife kept in temporary exhibits (which requires an Exhibitor's Permit) must be released within 4 weeks of collection at the point of capture. All wildlife kept in temporary exhibits should be released by September 15 to allow the animal time to prepare for hibernation. Amphibians and reptiles collected in different locations should be kept separate to prevent the spread of disease. Animals that show any sign of disease or ill health must not be released.

4) Threatened and endangered species
 The VDGIF adopts the federal list as well as a state list of endangered and threatened species. The taking, exportation, transportation, or possession of endangered or threatened species may be permitted for zoological, educational, or scientific purposes and for propagation of such fish or wildlife in captivity for

preservation purposes. A Threatened and Endangered Species Permit is required.

5) It is unlawful for the owner or keeper of any reptile not native to the Commonwealth, including but not limited to the American alligator, to keep the reptile in any manner that will permit its escape or to knowingly permit the reptile to run at large.

6) The possession, importation and sale of native or naturalized albino amphibians and reptiles is not prohibited. This does NOT extend to exotic species.

6) VDGIF Permits visit www.dgif.state.va.us "forms", "permits & licenses"

- *Threatened and Endangered Species Permit:* for any activities related to federal- or state-endangered or threatened species. One-year permit. Fee: \$20.00.
- *Scientific Collection Permit:* for the collection, or capture and release, of non-listed wildlife for *scientific or educational purposes*. Two-year permit. Fee: \$40.00.
- *Salvage Permit:* for the collection of animals found dead for *scientific or educational purposes*. Three-year permit. Fee: \$60.00.
- *Exhibitor's Permit:* for the exhibit of live animals for educational purposes. One-year permit. Fee: \$20.00 for state agencies, educational institutions, towns, etc. \$50.00 for private businesses
- *Possess, Propagate, Buy, and Sell Certain Wildlife:* This is for individuals who wish to raise animals. Only certain species and size classes are allowed. They can take up to 5 from the wild for brood stock then they can sell the captive-bred offspring. The captive-bred amphibians listed can be sold only for educational or research purposes, except the bullfrogs which can be sold for human consumption. Fee: \$12.50
- *Hold and Sell Certain Fish, Snakes, Snapping Turtles, Crayfish, & Hellgrammites :* For individuals, pet stores and dealers, who wish to buy animals from the propagators, then sell them. As above only certain species and size classes are allowed. Fee depends on species of interest. . They can also be bought and sold on the Hold for Sale permit.
- *Collect Snapping Turtle, Crayfish, and Hellgrammites for Sale:* Snapping turtles can be taken from the wild and sold following certain criteria. Fee: \$50.00

- *Rehabilitation of Wildlife:* the primary purpose of a rehabilitator as permitted by VDGIF is to "return injured or orphaned animals to their natural habitat, as quickly as possible, providing them with a reasonable chance to function and behave normally within its population and ecosystem." There are different categories of rehabilitator and criteria associated with each.

In addition, federal, county, and city governments may maintain regulations regarding the keeping of certain animals within their jurisdiction. You should check with the relevant agency in your locality before planning to keep or collect reptiles or amphibians.

U.S. Forest Service Makes Construction Guide for Vernal Pools available online

The USDA Forest Service, Ducks Unlimited, Inc., and the Izaak Walton League of America are pleased to announce the publication of *A Guide to Creating Vernal Ponds*. This book contains techniques that educators, public land stewards, and private landowners may use to establish ephemeral wetlands.

This publication (pdf document) or an order form can be found at: <http://www.southernregion.fs.fed.us/boone/> .

Music to my ears!

Frogwatch USA and eNature.com have made frog calls available online. Visit www.frogwatch.org and click on the "Field Guides" link to hear more. Don't forget—many calls are also available on the VHS website.

National Atlas of Amphibian Distributions available online from USGS

A new USGS website, made possible by the Amphibian Research and Monitoring Initiative (ARMI): The ARMI National Atlas for Amphibian Distributions can be found at: www.pwrc.usgs.gov/armiatlas/

The website contains some important disclaimers about the data and the sources of the data. Be sure to review this before using.

Sixth Edition of Common & Scientific Names List Scheduled

The Center for North American Herpetology (CNAH) is pleased to announce that funding for the sixth edition of "Standard Common and Current Scientific Names for North American Amphibians, Turtles, Reptiles, and

Crocodylians" by Joseph T. Collins and Travis W. Taggart has been secured. We anticipate that the sixth edition will appear in spring 2004. Copies of the current fifth edition, which appeared in 2002, will be exhausted by fall 2003. The new sixth edition is planned both because of the large number of taxonomic changes that have occurred since September 2002 and because of those that will occur in the next twelve months. Users of the CNAH list should continue to monitor the foundation's web site, in order to be kept abreast daily of the proposed taxonomic changes to the North American herpetofauna. This service is available for North America only on the CNAH web site. Individuals wishing to obtain a printed copy of the fifth edition should go to <http://www.cnah.org/announce.asp?id=20> and follow the instructions.

World's Top 25 List of Endangered Turtles

In May the Turtle Conservation Fund released its first ever list of the world's most endangered turtles. They estimate that 200 of the world's 300 species of freshwater turtles and tortoises are in need of conservation action. This list is based on the IUCN Red List of Threatened Species with consensus from the Center For Applied Biodiversity Science at Conservation International (CABS), The World Conservation Union Species Survival Commission's (IUCN/SSC) Tortoise and Freshwater Turtle Specialist Group (TFTSG), and IUCN/SSC Turtle Survival Alliance (TSA).

Also included is a conservation action plan which discusses crucial strategies to increase the likelihood of long term survival of the species. The document highlights human exploitation including the food and pet trade and development-related pressures on the species and their habitats. The list and plan are available at the following website:

<http://www.uga.edu/srelherp/staff/kBuhlmannCIProject.pdf>

Roads and wildlife, not a good mix...this document outlines strategies to integrate wildlife management into transportation projects (from HerpDigest)

Defenders Of Wildlife And Surface Transportation Policy Project (STPP) recently announced the release of a new report, "Second Nature: Improving Transportation Without Putting Nature Second." The full report is available online at www.defenders.org/habitat/highways and www.transact.org

The report outlines the impacts of surface transportation infrastructure on America's wildlife and provides "win-win" solutions that retain and respect both our mobility and conservation objectives. Several states and agencies have avoided conflicts between transportation and environmental protection by utilizing better governmental cooperation, more comprehensive up front planning and greater stakeholder involvement in early on in the planning of transportation projects. Each solution is illustrated by at least one case study where we found these practices already in motion. The report also makes environmental stewardship policy recommendations for the reauthorization of TEA-21, the federal transportation bill now pending in Congress.

Color Images Needed For Book, "Snakes Of The Southeast"

Whit Gibbons and Mike Dorcas are currently working on a full-color book titled "Snakes of the Southeast" to be published by the University of Georgia Press in 2004. This book is designed for the lay person as a guide to and general information about snakes found in the states of Louisiana, Mississippi, Alabama, Tennessee, Georgia, Florida, South Carolina, North Carolina, and Virginia. Whit and Mike are requesting contributions of high-quality slides; however, high resolution digital images may also be acceptable. If your images are used in the book, proper acknowledgment will be provided. To get a complete list of images required contact Mike Dorcas at midorcas@davidson.edu.

I thought that VHS members might be interested in this editorial, in its entirety, that was published in the New York Times, July 13, 2003—Shelly Miller, newsletter editor

The Problem of Exotic Pets

Over the past few months we've had several unfortunate reminders of the biological common ground we share with other species. The SARS virus probably crossed over from animals to humans in Guangdong Province in China. Humans got monkeypox from pet prairie dogs, which probably caught it, in turn, from an imported Gambian rat. Meanwhile, at the movies, there is "28 Days Later," a horror film about a "rage" virus that passes swiftly and catastrophically from chimpanzees to humans. We can probably discount the dangers of a fast-acting horror-movie virus, but not the others.

If nothing else, the emergence of SARS and the recent outbreak of monkeypox in the United States are reminders that the potential biological effects of globalization can be chilling. Ordinarily, prairie dogs, native to America, do not catch diseases from rats native to western and central Africa. And humans do not ordinarily catch diseases from prairie dogs. What made the chain of monkeypox infection possible were humans who keep wild animals — prairie dogs and Gambian rats — as pets.

Although the federal government has now banned the distribution of prairie dogs and the importation of rodents from Africa, the monkeypox scare demonstrates how poorly regulated the ownership of and traffic in wild or exotic pets really are. A dozen states and some localities outlaw owning dangerous animals, and the federal government, as a signatory to the Convention on International Trade in Endangered Species, prohibits, in most cases, owning or transporting endangered animals. But that still leaves most of the world's wildlife free to be captured, transported, sold and kept as pets. There has been a significant escalation in the trafficking of such pets in recent years.

For selfish reasons alone, Americans should avoid keeping exotic pets. The dangers of sharp teeth and long claws are obvious, but so are the dangers of zoonotic diseases, which can be transmitted from animals to humans. Monkeypox affected only a few dozen people, but those who get salmonellosis from pet reptiles number in the tens of thousands. Macaque monkeys carry a form of herpes B that is very dangerous to humans. As monkeypox also demonstrated, it can be very hard to predict just what opportunities viruses will exploit to make the jump from animals to humans.

We should also oppose the ownership of wild animals as pets for another reason. It is bad for the animals, individually and as species. Almost no one is capable of giving exotic pets, no matter how small, the conditions they would enjoy in the wild. The death rate in the trafficking of wild animals, especially reptiles, is horrendous, and the plundering of wild populations for pets has decimated some species, especially tortoises. The boundary between domestication and wildness is not a soft one. It is, essentially, a biological absolute as well as a cultural one. Some kinds of animals have been tamed, one by one, but only a very few kinds have ever been domesticated, and those are the only ones that should be kept as pets.

The effort to block the trading and ownership of wild animals has been slow and piecemeal. But each piece helps. At the moment, the Senate is considering a bill called the Captive Wildlife Safety Act, which, with some obvious exceptions, would prevent interstate commerce in the big cats. (A similar bill has been introduced in the House.) This bill is being sponsored by Senators James Jeffords and John Ensign, who is one of two veterinarians in the Senate. The other veterinarian, Senator Wayne Allard, will preside over a hearing this week for the Senate Environment and Public Works Committee on the subject of zoonotic diseases.

As his hearings proceed, it will be worth remembering that Gambian rats and prairie dogs are not to blame for the monkeypox outbreak. No wild animal chooses to be made a pet.

Visit this website to search for info on House and Senate legislation including recent actions under the Captive Wildlife Safety Act mentioned above.

<http://thomas.loc.gov/>

Literature Cited

This section contains a collection of literature published this year related to herpetofauna (especially of Virginia). This is not intended to be inclusive. Most of the citations come from the following websites. These sites contain more complete bibliographies on herp literature.

<http://www.squamata.de/papers.html> contains herp-related citations from non-herp journals

<http://www.herplit.com/contents/index.html> contains links to contents from various journals and a searchable database

Herps in general

Bossert, Marc, Matt Draud and Travis Draud. 2003. *Bufo fowleri* (Fowler's Toad) and *Malaclemys terrapin terrapin* (Northern Diamond-backed Terrapin). Refugia and nesting. *Herpetological Review*. 34(1):49.

Jenkins, Christopher L., Kevin McGarigal and Lloyd R. Gamble. 2003. Comparative effectiveness of two trapping techniques for surveying the abundance and diversity of reptiles and amphibians along drift fence arrays. *Herpetological Review*. 34(1):39-42. [christolj@hotmail.com]

Williams, Becky L., Edmund D. Brodie, Jr and Edmund D. Brodie, III. 2003. Coevolution of deadly toxins and predator resistance: Self-assessment of resistance by Garter Snakes leads to behavioral rejection of toxic newt prey. *Herpetologica*. 59(2):155-163. [beckyw@biology.usu.edu]

Amphibians

Anderson, Athena R. and James W. Petranka. 2003. Odonate predator does not affect hatching time or morphology of embryos of two amphibians. *Journal of Herpetology*. 37(1):65-71. [JWP: petranka@cs.unca.edu]

Attum, O., Eason, P. & Cobbs, G. (2002) Effects of collection on weight, length, and sex ratio of red-spotted newts, *Notophthalmus viridescens*. *J. Herpetol*: 36; 703-707; (oattum@aol.com)

Bank, M., et al. (2002) Effects Of Fire History, Trophic Dynamics And Watershed Complexity On Mercury Bioaccumulation And Biomagnification In Two-Lined Salamanders (*Eurycea bislineata*) From Acadia And Shenandoah National Parks. a report from a DAPTF (Declining Amphibian Population Task Force) Seed Grant recipient. michael.bank@umit.maine.edu

Cook, Kiersten, Sam Droege and Arthur Remington Kellogg. 2002. Stomach content analysis of 13 North

American toad species. *Bulletin of the Maryland Herpetological Society*. 38(3):75-85. [USGS - Patuxent Wildlife Research Center, Laurel, MD 20708-4038, USA]

Eaton, Brian R., Cynthia A. Paszkowski and Ross Chapman. 2003. *Rana sylvatica* (Wood Frog). Parasite. *Herpetological Review*. 34(1):55.

Grace, Michael S. and Don R. Church. 2003. *Ambystoma maculatum* (Spotted Salamander). Vernal migration. *Herpetological Review*. 34(1):44-45.

Grace, Michael S. 2003. Timing of reproductive immigration in salamanders: Roles of environmental cues and endogenous biological clocks. *Herpetological Review*. 34(1):17-20. [mgrace@fit.edu]

Green, David M. and Christine Parent. 2003. Variable and asymmetric introgression in a hybrid zone in the toads *Bufo americanus* and *Bufo fowleri*. *Copeia*. 2003(1):34-43. david.m.green@mcgill.ca

Halverson, M. A., Skelly, D. K., Kiesecker, J. M. & Freidenburg, L. K. (2003) Forest mediated light regime linked to amphibian distribution and performance. *Oecologia*: 134; 360-364. (anders.halverson@yale.edu)

Harris, Reid N., Tomalei J. Vess, John I. Hammond and Christine J. Linderemuth. 2003. Context-dependent kin discrimination in larval Four-Toed Salamanders *Hemidactylium scutatum* (Caudata: Plethodontidae). *Herpetologica*. 59(2):164-177. [harrisrn@jmu.edu]

Maerz, John C. and Jeremiah Karuzas. 2003. *Plethodon cinereus* (Eastern Red-backed Salamander). Cannibalism. *Herpetological Review*. 34(1):46-47.

McCallum, Malcolm L., Tracy L. Klotz and Stanley E. Trauth. 2003. *Rana sylvatica* (Wood Frog). Phonotactic stalking. *Herpetological Review*. 34(1):54.

McCallum, Malcolm L., Tracy L. Klotz and Stanley E. Trauth. 2003. *Rana sylvatica* (Wood Frog). Death feigning. *Herpetological Review*. 34(1):54-55.

McCoy, Krista A. and Reid N. Harris. 2003. Integrating developmental stability analysis and current amphibian monitoring techniques: An experimental evaluation with the salamander *Ambystoma maculatum*. *Herpetologica*. 59(1):22-36. [RNH: harrisrn@jmu.edu]

Mokany, A. & R. Shine (2003): Biological warfare in the garden pond: tadpoles suppress the growth of mosquito larvae. – *Ecol. Entomol.*, 28 (1): 102-108.

Rittmann, Suzanne E., Erin Muths and D. Earl Green. 2003. *Pseudacris triseriata* (Western Chorus frog) and *Rana sylvatica* (Wood Frog). Chytridiomycosis. *Herpetological Review*. 34(1):53.

Sih, A. et al. (2003): Behavioural correlations across situations and the evolution of antipredator behaviour in a sunfish-salamander system. – *Anim. Behav.*, 65 (1): 29-44.

Skelly, David K. and Jennifer Golon. 2003. Assimilation of natural benthic substrates by two species of tadpoles. *Herpetologica*. 59(1):37-42. [david.skelly@yale.edu]

Toal, Kevin R. and Joseph T. Collins. 2003. *Gastrophryne carolinensis* (Eastern Narrow-mouthed Toad). Maximum size. *Herpetological Review*. 34(1):50.

Wheeler, B. A. et. al. (2003): Population declines of a long-lived salamander: a 20 + year study of hellbenders, *Cryptobranchus alleganiensis*. – *Biol. Conserv.*, 109 (1): 151-156.

Whiteman, Howard H., Judy P. Sheen, Eric B. Johnson, Anna VanDeusen, Robin Cargille and Tyson W. Sacco. 2003. Heterospecific prey and trophic polyphenism in larval Tiger Salamanders. *Copeia*. 2003(1):56-67. [howards.whiteman@murraystate.edu]

Reptiles

Antonio, Fred and Ellis C. Greiner. 2003. *Agkistrodon contortrix contortrix* (Southern Copperhead). Endoparasites. *Herpetological Review*. 34(1):59-60.

Bufalino, Angelo P. and A. Floyd Scott. 2003. The distribution of *Nerodia erythrogaster* in the Lower

Cumberland River Basin of Kentucky and Tennessee. *Herpetological Review*. 34(1):77-78. [bufalino@slu.edu]

Clark, A. M., Paul E. Moler, E. E. Possardt, Alan H. Savitzky, William S. Brown and Brian W. Bowen. 2003. Phylogeography of the Timber Rattlesnake (*Crotalus horridus*) based on mtDNA sequences. *Journal of Herpetology*. 37(1):145-154. [ginger@biotech.ufl.edu]

Constanzo, J. P. et al. (2003): Endogenous and exogenous ice-nucleating agents constrain supercooling in the hatchling painted turtle. – *J. Exp. Biol.*, 206 (3): 477-485.

Creque, Terry R., Carl H. Ernst and John M. Orr. 2003. *Thamnophis sirtalis sirtalis* (Eastern Garter Snake). Parturition. *Herpetological Review*. 34(1):75.

Dietz, Rick and Dino Ferri. 2003. *Chelydra serpentina* (Common Snapping Turtle). Deformity. *Herpetological Review*. 34(1):56.

Dundee, Harold A. 2003. *Regina septemvittata* (Queen Snake). Aberrant pattern. *Herpetological Review*. 34(1):72.

Finkler, Michael S. and Amy E. Schultz. 2003. *Sternotherus odoratus* (Common Musk Turtle) and *Chelydra serpentina* (Common Snapping Turtle). Reproduction. *Herpetological Review*. 34(1):58.

Haenel, Gregory J., Linda C. Smith and Henry B. John-Alder. 2003. Home-range analysis in *Sceloporus undulatus* (Eastern Fence Lizard). I. Spacing patterns and the context of territorial behavior. *Copeia*. 2003(1):99-112. [haenel@elon.edu]

Haenel, Gregory J., Linda C. Smith and Henry B. John-Alder. 2003. Home-range analysis in *Sceloporus undulatus* (Eastern Fence Lizard). II. A test of spatial relationships and reproductive success. *Copeia*. 2003(1):113-123. [haenel@elon.edu]

Lenglet, Georges, Jan Haelters, Oliver S. G. Pauwels and Thierry Jauniaux. 2003. *Dermochelys coriacea* (Leatherback Sea Turtle). Stranding. *Herpetological Review*. 34(1):57.

Litzgus, Jacqueline D. and Timothy A. Mousseau. 2003. Multiple clutching in southern Spotted Turtles, *Clemmys guttata*. *Journal of Herpetology*. 37(1):17-23. [litzgus@biol.sc.edu]

Mitchell, Joseph C. 2003. Book review: North American Box Turtles, A Natural History. *Copeia*. 2003(1):209-210. [jmitchel@richmond.edu]

Pisani, George R. 2003. *Elaphe o. obsoleta* (Black Ratsnake) Escape behavior, habitat. *Herpetological Review*. 34(1):66.

Schmid, J. R. et al. (2003): Home range and habitat use by Kemp's ridley turtles in west-central Florida. – *J. Wildl. Manage.*, 67 (1): 196-206.

Starkey, D. E. et al. (2003): Molecular systematics, phylogeography, and the effects of Pleistocene glaciation in the painted turtle (*Chrysemys picta*) complex. – *Evolution*, 57 (1): 119-128.

Stephens, P. R. & J. J. Wiens (2003): Explaining species richness from continents to communities: the time-for-speciation effect in emydid turtles. – *Am. Nat.*, 161 (1): 112-128.

Toal, Kevin R. and Joseph T. Collins. 2003. *Cnemidophorus sexlineatus* (Six-lined Racerunner). Maximum size. *Herpetological Review*. 34(1):59.

Weishampel, J. F. et al. (2003): Spatiotemporal patterns of annual sea turtle nesting behaviors along an East Central Florida beach. – *Biol. Conserv.*, 110 (2): 295-303.

Wilson, Dawn S., Christopher R. Tracy and C. Richard Tracy. 2003. Estimating age of turtles from growth rings: A critical evaluation of the technique. *Herpetologica*. 59(2):178-194. [dwilson@csuchico.edu]

Virginia Native



photo by John White

Queen snake (*Regina septemvittata*)

Status and threats:

Currently this species is secure in the Commonwealth, however, urban and other types of development are affecting some populations through channelization, siltation, and stream impoundment. Conservation of clear, rocky streams with sufficient crayfish populations is important to long term survival of this species.

Characteristics:

This is a small to medium sized snake reaching a maximum total length of 28 inches in Virginia. The dorsum is uniformly brown with white or cream colored lateral stripes. The belly is white with two rows of brown to black spots.

Habits and Habitats:

This species is found along streams, ditches, lakes and ponds. It prefers areas with large, loose rocks and overhanging vegetation. It feeds exclusively on molting crayfish. This snake will bask on overhanging vegetation and drop into water when startled—sometimes startling passersby!

Distribution:

In Virginia, this species has been found in the upper Coastal Plain, Piedmont, and western Virginia. Its entire distribution ranges from Michigan and southern Ontario to the Florida panhandle. It is also found in a isolated patch in Arkansas.

References:

Mitchell, J.C. 1994. The reptiles of Virginia. Smithsonian Institution Press, Washington, D.C. 352 pp.

Conant, R. and J.T. Collins. 1998. A field guide to the amphibians and reptiles, eastern and central North America. 3rd edition. Houghton Mifflin Co., Boston, MA. 616 pp.

Please sign me up for membership in the Virginia Herpetological Society for the year(s) of _____.
Membership begins and ends on a calendar year.

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Daytime phone: (____) _____

E-mail address: _____

Be sure to include e-mail address to receive newsletter electronically.

Make check or money order payable to:

Virginia Herpetological Society

Check Membership Type:

Under 18 \$8.00 _____

Regular \$15.00 _____

Family \$20.00 _____

Life \$225.00 _____

Mail Payment to:

Paul Sattler, Secretary/Treasurer

Department of Biology

Liberty University

1971 University Boulevard

Lynchburg, VA 24502

VIRGINIA HERPETOLOGICAL SOCIETY

1700 Blakemore Road

Richmond, VA 23225

If the year is highlighted on the mailing label, your membership is up for renewal.

Northern cottonmouth. (Virginia Herpetological Society). A thick-bodied, venomous bruiser, the cottonmouth hangs out in the swamps and streams of far southern and southeastern Virginia. An isolated population lives near the confluence of the James and Appomattox rivers in the Hopewell area. Watersnakes. Northern water snake. (Virginia Herpetological Society). Watersnakes are nonvenomous swimming serpents. Our most common one, the northern watersnake, lives along rivers, streams and suburban ponds across Virginia. Virginia political leaders made this resident of parks and yards the official state snake in 2016. It was a good choice if you like an ornery, wiggly, little guy that bites and exudes a stinky, poop-like musk when it's scared. CNN Newsletters. Work for CNN. Follow CNN. A rare two-headed copperhead discovered in Virginia. By Amanda Jackson, CNN. Updated 0914 GMT (1714 HKT) September 24, 2018. JUST WATCHED. Rare two-headed snake discovered in Virginia. (CNN) A rare discovery was made in northern Virginia this month when a two-headed baby copperhead slithered in the yard of a resident. The unnamed person who found the snake contacted the Virginia Herpetological Society for identification and a state herpetologist picked it up to study. "Wild bicephalic snakes are exceptionally rare, because they just don't live that long," J.D. Kleopfer of the Virginia Department of Game and Inland Fisheries posted on Facebook on Thursday. "Too many challenges living day to day with two heads." Virginia Herpetological Society. Sign Up for e-mail newsletters. Stay up to date on the coronavirus outbreak by signing up to our newsletter today. Contact me with news and offers from other Future brands. Receive email from us on behalf of our trusted partners or sponsors. Thank you for signing up to Live Science. You will receive a verification email shortly. There was a problem. Please refresh the page and try again.