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# Virginia Herpetological Society Newsletter

Volume 14, Number 2

July 2004

<http://fwie.fw.vt.edu/VHS/>

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President  
Mike Clifford

Secretary/Treasurer  
Paul Sattler

Vice President  
Kory Steele

Catesbeiana Editor  
Steve Roble

Newsletter Editor  
Shelly Miller (Susan Watson substituting in this issue)

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## ***FALL MEETING INFORMATION INSIDE!!***

### **PRESIDENT'S MESSAGE**

Mike Clifford [mjc4h@vt.edu ]

#### **Spring Meeting & Survey**

We had a productive spring business meeting and an interesting herp survey in Halifax county, May 21-23. Thanks go to VHS members Mike Hayslett and Jerry Craig for their work in planning, scouting, and coordinating the survey at "The Cove". Thanks also to all of those who participated in the survey and to the Ward Burton Wildlife Foundation for inviting us to their wonderful refuge. Twenty-four herp species were recorded - four salamanders (1 county record), eight anurans (2), three turtles (1), three lizards, and six snakes (1). Mike and Jerry will publish the complete findings in an upcoming edition of *Catesbeiana*. We also made fairly extensive use of GPS receivers (see related article) in combination with electronic topographic mapping programs.

#### **Fall Meeting Committee**

Our Vice President Kory Steele is coordinating the VHS Fall Meeting, including the annual symposium. He'll also be working with Education Committee Chairman Mike Hayslett in setting up workshops for teachers and other educators. Kory can be contacted at [kory.steele@valivingmuseum.org](mailto:kory.steele@valivingmuseum.org). Mike can be contacted at [mhayslet@vt.edu](mailto:mhayslet@vt.edu). Please contact me at [mjc4h@vt.edu](mailto:mjc4h@vt.edu) if you have suggested agenda items for the fall business meeting.

One topic for decision will be the location and timing for the 2005 Spring Meeting and Survey. If you have a grand idea for this event, please do a little homework before the fall meeting. Selection considerations include: 1. Is the county/region in need of herp survey? 2. What are the "featured species" and when is the best seasonal time to do the survey? 3. Are accessible and desirable survey location(s) available? 4. Is there an adequate meeting and HQ site? 5. Are lodging/camping facilities available nearby? Contact Kory or me to discuss your ideas for next spring's event.

#### **Publications Committee**

Jason Gibson, our immediate past-president, is chairman of the VHS Publications Committee. This summer, the committee will be conducting a review of several publication-related issues, with recommendations to be brought forward at our fall business meeting. Issues relating to the VHS archives (locations, storage technologies, etc.) and to vouchering standards are on the

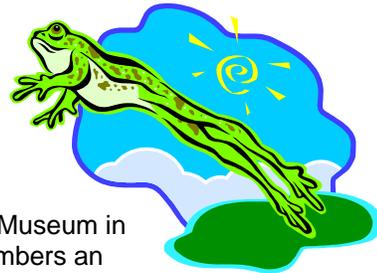
committee's agenda. Suggestions related to *Catesbeiana*, the VHS Newsletter, and to the VHS website are also welcome. Contact Jason at frogman31@earthlink.net to provide your input.

I'd like to take this opportunity to thank our publications people for their outstanding and dedicated work on behalf of the Society: *Catesbeiana* editor Steve Roble, VHS webmaster John White, and VHS Newsletter editor Shelly Miller (along with her temporary substitute Susan Watson).

The reason that Shelly has a substitute editor is that she gave birth to a baby girl during the recent VHS spring survey weekend, although fortunately in a hospital instead of at "The Cove". The little girl's name is Beatrice. Considering the timing, I was hoping they'd name her Cate (short for *Catesbeiana*), but it was not to be. Congratulations Shelly and Dean!

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## VHS Fall Meeting & Workshop at the Virginia Living Museum in Newport News October 2, 2004



The VHS will have its annual fall meeting at the Virginia Living Museum in Newport News, on October 2, 2004. This will provide VHS members an opportunity to visit the brand-new 62,000 square foot, \$22.6 million, exhibit building. The Virginia Living Museum carries the same theme as the VHS, by specializing in, and exhibiting, animals native to Virginia. The VHS members will get an exclusive behind the scenes look at the 250-300 native reptiles and amphibians in the collection.

There will be a teacher workshop from 8:00 am to 12:00. This meeting will also feature a silent auction and a photo contest. Anyone interested in giving a 15-20 minute presentation should contact Mike Clifford by September 3rd. More information and directions will be provided in the next issue of *Catesbeiana* and on the VHS Website, at <http://fwie.fw.vt.edu/VHS/>. Check out the Virginia Living Museum's Website at [www.valivingmuseum.org](http://www.valivingmuseum.org).

### TIPS FOR USING GPS IN HERP FIELD WORK

by Mike Clifford [mjc4h@vt.edu]

The Global Positioning System has become a powerful and affordable tool for a variety of scientific investigations, including herpetological research. Prices of "recreational" GPS models have been dropping, even as accuracy and unit capabilities have been increasing. For about \$160, you can purchase a receiver that not only locates your position anywhere on earth, but can also display road and topographic maps on its screen, track and direct your movements, perform area calculation in the field, find the nearest restaurant or hospital, display the current sun & moon phase, and perform a hundred other useful tasks. Spend a little more and you can get an altimeter/barometer,

electronic compass, weather radio, and even a FRS/GMRS radio that can send and receive positions!

During the recent VHS spring survey at "The Cove" in Halifax County, each of our four survey teams used GPS to mark coordinate locations (known as "waypoints" or "markers") of specimens and habitats. These waypoints were transferred, in the field, from the GPS receivers on to a laptop computer and viewed on its topographic mapping program. Later back at the office, maps of each of The Cove's quadrants were printed, showing markers that correlate to the survey data sheets and geographic coordinates. This is but one simple use of GPS in herpetological research.

The latest GPS receiver models are user friendly and intuitive. Basic operations are

generally well explained in the owner manuals. But, because they have become so feature-rich, many of the advanced capabilities are glossed over in the manuals. The following tips may help you to see some new ways to use GPS in the field and to avoid some of the pitfalls in dealing with this technology.

**Map Datum.** A map datum is a mathematical model used to manage the inherent distortion created when producing a flat map from the round earth. Be sure to set your GPS unit's map datum to correspond to that of the paper or electronic maps you are using. The default GPS datum is WGS 84. The datum for most USGS topographic maps is NAD 27 CONUS. Failure to match the datum can lead to considerable error, although the GPS receiver can handle the conversion after-the-fact if necessary.

**Coordinate/Grid systems.** Most folks are familiar with Latitude-Longitude, but there are many other position formats that your GPS receiver can display. One of the most useful is UTM (Universal Transverse Mercator), especially when working with paper maps. Connecting the blue tick marks along the margins of USGS 7.5' topographic maps will produce a grid of squares, 1000-meters on a side. When set to UTM, your GPS receiver displays coordinate precision to one meter within these squares, allowing you to easily pinpoint herp locations on the map. Note that precision exceeds accuracy in this case!

**Accuracy.** Standard civilian GPS horizontal accuracy is listed as 15 meters (49.2') or better. In reality, it is usually twice this good (20-25'). Most new GPS models also are capable of differential correction using WAAS (the FAA's Wide Area Augmentation System), which can improve accuracy to 3 meters. Most GPS receivers will display an estimated position error. Several factors affect accuracy - satellite geometry, ionospheric interference, multipath (reflected) signals, and blocked signals. The latter two are of particular concern for herp fieldwork in Virginia. Both heavy tree cover and steep terrain can cause problems. Use your receiver's satellite page to locate blockages. Sometimes patience will solve the problem, since the satellite positions are

constantly changing. Moving a few feet or elevating the receiver (your body can block signals) may help. If none of these suggestions work, you may just have to move uphill or to a more open area to get a position reading.

**Batteries:** Multi-featured GPS receivers put a real drain on the batteries (usually two to four AA size). Rechargeable NIMH (Nickel Metal Hydride) batteries are the economical and environmental choice.

**Area Calculation.** Environmental studies often require acreage data on areas to be sampled or surveyed. Several low-cost GPS models are now capable of area calculation in the field. Using the track log generated while traversing the perimeter of a tract, the receiver measures both circumference and enclosed area. The results can be displayed in (and instantly converted among) units of your choice - metric, statute, nautical. Some models also can produce an area estimate by linking major corner/turn waypoints in sequence. This is useful in difficult terrain where it is not possible to traverse the tract's perimeter.

**Sampling.** As mentioned earlier, UTM is a grid system that can be reduced to one meter squares, each with its own unique geographic-numerical address (the UTM coordinate). This lends itself to random sampling selection techniques. Selected coordinates are entered into the GPS receiver, which is then used to locate the scattered plots in the field. GPS can also be used in linear sampling (such as foresters' cruise lines & plots). From any given waypoint in the GPS receiver, a series of new waypoints can be "projected" at selected distances in a desired direction. These waypoints are then linked together as a "route" in the receiver, which when activated, will lead the user along the cruise line to each plot.

**Conclusion.** GPS can be a very useful tool in herpetological fieldwork. This article has only scratched the surface. Although not yet confirmed, we hope to offer a GPS workshop at the 2004 VHS Fall Meeting if there is enough interest. If you are interested in participating in such a session at the fall meeting or elsewhere, contact me at [mjc4h@vt.edu](mailto:mjc4h@vt.edu) or 804.561.5411.

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# Virginia Amphibian Monitoring Volunteers Needed

## To Hear the Evening Choruses of Frogs & Toads

By Don Schwab (VDGIF)



### Why:

Observers around the world have become concerned about population declines and mutations of several amphibian species. Because of their sensitivity to air and water quality, amphibian populations can serve as an indicator of environmental conditions in their immediate habitat. When long-term standardized monitoring data are collected from across the country, the local, regional and national patterns of amphibian stability or decline can be analyzed. If population declines are observed, we can focus our attention on the causes and work to reverse them.

### Who:

The U. S. Geological Survey (USGS) has developed an international study to investigate the distribution and relative abundance of amphibians in North America called the North American Amphibian Monitoring Program (NAAMP). Virginia Department of Game and Inland Fisheries has participated in the program since 1999.

### How:

New volunteers are assigned a randomly generated starting point for a particular route. The volunteer will locate 10 "froggy looking" stations along roadsides from your starting point. You will return to these stations 3 or 4 evenings during the spring and summer. Specific "windows" of listening periods have been designated to insure that all possible species are heard. Your information will be incorporated into the national database.

### Training:

The Wildlife Diversity (NAAMP Virginia State Coordinator) staff will hold training sessions in November 2004.

**Additional Information:** If you are interested please contact:

Donald J. Schwab, Wildlife Biologist at:

[dschwab@dgif.state.va.us](mailto:dschwab@dgif.state.va.us) or [vacanebrake@yahoo.com](mailto:vacanebrake@yahoo.com)

or by telephone at 757-253-7072.

The 2004 Survey Season is coming to an end. Thirty-five routes were sent out in 2004. The following counties or cities have open routes where volunteers are needed:

Abermarle (2), Amelia, Appomattox, Arlington, Botetourt, Brunswick, Buchanan, Buckingham, Caroline (1), Charlotte, Chesapeake, Chesterfield, Culpeper, Cumberland, Dinwiddie, Fairfax, Fluvana, Franklin, Giles, Gloucester, Grayson (2), Greene, Halifax (2), Henrico (1), Henry, Highland, Isle of Wight, James City, Lee, Loudon, Lunenburg, Mecklenburg, Middlesex, Montgomery, New Kent, Nottoway, Pittsylvania (2), Richmond Co., Russell, Scott, Spotsylvania, Stafford, Suffolk, Tazewell, Washington, and Westmoreland (1).

The results for the 2003 Survey follows:

### SUMMARY RESULTS

#### 2003

- 29 of 43 routes assigned were run (67%)
- 20 of 27\* frog and toad species found in Virginia were recorded on at least one route (74%)
- The Northern Spring Peeper was recorded on all routes surveyed.
- 25 (25%) of 100 counties are currently being Surveyed

**SPECIES RECORDED 2003**  
(All routes & in which physiographic regions)

1. Eastern American Toad ( <i>Bufo a. americanus</i> )	all regions reported
2. Fowler's Toad ( <i>B. fowleri</i> )	all regions reported
3. Eastern Spadefoot ( <i>Scaphiopus holbrooki holbrooki</i> )	Coast & Mtns
4. Eastern Cricket Frog ( <i>Acris c. crepitans</i> )	all regions reported
5. Coastal Plain Cricket Frog ( <i>A. g. gryllus</i> )	Coast
6. Gray Treefrog ( <i>Hyla versicolor</i> )	Mtns & Piedmont
7. Cope's Gray Treefrog ( <i>H. chrysoscelis</i> )	all regions reported
8. Barking Treefrog ( <i>H. gratiosa</i> )	Coast
9. Green Treefrog ( <i>H. cinerea</i> )	Coast
10. Northern Spring Peeper ( <i>Pseudacris c. crucifer</i> )	all regions reported
11. Mountain Chorus Frog ( <i>P. brachyphona</i> )	Mtns
12. Brimley's Chorus ( <i>P. brimleyi</i> )	Coast
13. Upland Chorus Frog ( <i>P. f. feriarum</i> )	Coast & Mtns
14. New Jersey Chorus Frog ( <i>P. f. kalmi</i> )	Coast
15. American BullFrog ( <i>Rana catesbiana</i> )	all regions reported
16. Wood Frog ( <i>R. sylvatica</i> )	Mtns & Piedmont
17. Northern Green Frog ( <i>R. clamitans melanota</i> )	all regions reported
18. Pickerel Frog ( <i>R. palustris</i> )	all regions reported
19. Southern Leopard Frog ( <i>R. sphenoccephala utricularia</i> )	Coast & Piedmont
20. Eastern Narrow-mouthed Toad ( <i>Gastrophryne carolinensis</i> )	Coast & Piedmont

\*Striped Southern Chorus Frog (*P. n. nigrita*) first reported from Va. in 2003 (though not from our survey)

**Number of Routes (Reporting in 2003) per Physiographic Region:**

- Coastal Plain: 12 (41%)
- Piedmont: 7 (24%)
- Mountains: 10 (35%)

**Number of Species Recorded (20 species reported in 2003) in each Physiographic Region:**

- Coastal Plain: 17 (85%)
- Piedmont: 13 (65%)
- Mountains: 12 (60%)

## **HERP-RELATED NEWS**

### **EXOTIC PET SHOP OWNERS CHARGED**

Press Release from the Virginia Department of Game & Inland Fisheries

Bristol, VA - Three men have been charged in relation to a search warrant that was executed on Animal Adventures, a pet store located on Lee Highway in Bristol, Virginia. Norman Henry Balthis and Corey Lane Edwards, both of Bristol, Virginia, and Brian D. Layell of Bristol, Tennessee, have been charged with criminal offenses for the illegal sale and possession of endangered species and native Virginia wildlife. Virginia

Department of Game and Inland Fisheries (VDGIF) game wardens, Special Law Assistance Patrol team members, and biologists, with assistance from the Bristol Police Department and Bristol Animal Control, executed the search warrant on Tuesday, May 18, 2004, on the retail animal outlet and seized an assortment of exotic and native animals including alligators, turtles, toads, and venomous snakes.

Balthis, Edwards, and Layell have been charged with a total of six felonies involving

the sale of wild animals, 24 misdemeanors relating to the possession of wild animals without a permit, and four misdemeanors for the failure to provide adequate care to the animals located at the business. The

Commonwealth Attorney for the City of Bristol announced that a court date has been tentatively set for July 15, 2004, in the City of Bristol General District Court.

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**New Policy Developing at National Marine Fisheries Service Threatens ESA Rulings, Past and Present, Covering All Species – Including Herps!**

From HerpDigest; Publisher/Editor Allen Salzberg; Sunday, May 16, 2004; Volume # 4 Issue # 37  
According to an article in the 5/9/04 New York Times, the timber industry's ex-top lawyer, Mark Rutzick, is now a high-ranking political appointee in the Bush administration and the National Marine Fisheries Service legal advisor who is helping to shape a new policy to count hatchery fish when determining whether salmon are endangered. The theory being if there are so many of the salmon alive in captivity why are they declared a threatened or endangered species. The new policy, expected to be out by the end of May, the N.Y. Times states, closely follows the position that Mr. Rutzick

advocated when he represented the timber industry, whose goal was to overturn fish and wildlife protections that loggers viewed as overly restrictive. The new policy ignores the findings of the Bush administration's own panel of outside scientific experts, as well as long-held views within the fisheries service and has caused a furor among some members of the scientific community. If this rule is accepted, it easy to see, it being used by the Bush administration for other plants and animals. So attempts to breed stock for eventual release in the wild for example, frogs and turtles, would undercut any attempts to gain it protection under the ESA, or any other Federal regulations, and could even help someone who wants to challenge a listing of a specific species.

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**New Herpetology Course for Teachers**

The Fish Lake Biological Program in Michigan is offering a new, one-week course called Herpetology for Teachers, which is designed for in-service science teachers and science-education students. Students will explore the world of reptiles and amphibians -- in the places where they live. Field sessions predominate this course, so students will spend considerable time outdoors exploring the hundreds of acres of lakes, wetlands, forests and meadows of the Fish Lake grounds and adjacent state game area, and conducting team field projects. At the Fish Lake site, students will spend some time in lectures (which are punctuated with videos of field herpetologists in action and current research findings) and doing labwork to enhance their understanding of the

animals we will see in the field. The course also features several field trips to sites of special interest where students can find some of Michigan's less common amphibians and reptiles.

A dormitory and cafeteria are available for students who wish those services. The Fish Lake biological station is located in Lapeer, Mich., about 60 miles north of Detroit.

For information about the course, which is offered through Wayne State University, see <http://bio.wayne.edu/fishlake/> or contact the instructor, Leslie Mertz, at [ab2530@wayne.edu](mailto:ab2530@wayne.edu).

(This information was posted on the PARC and the ECOLOG listserves.)

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**NOTICE: Requests for Needed Herp Photos!**

Both web sites of VHS and of the Virginia Dept. of Game & Inland Fisheries (VDGIF), are in need of photos of certain herp species. While both sites have photos of many of the herp species in Virginia, there are still several species for which photos are missing. VHS has an online field guide for Virginia's herpetofauna, divided by taxa groups (snakes, salamanders, turtles, etc.). New features on VDGIF's website are known as 'short species booklets'. These are a shortened, less technical versions of the 'booklets' that you can look up for each wildlife species in VDGIF's

separate online system, the Virginia Fish and Wildlife Information Service (VAFWIS). The 'short species booklets' are found at [www.dgif.virginia.gov](http://www.dgif.virginia.gov) by clicking on 'Wildlife', then clicking on 'Virginia Wildlife', and finally, select 'Species Information' under either Amphibians or Reptiles. Here is the list of species for which photos are needed for both web sites:

Reptiles:

Northern coal skink (*Eumeces anthracinus anthracinus*)  
 Southeastern five-lined skink (*Eumeces inexpectatus*)  
 Eastern six-lined racerunner (*Cnemidophorus sexlineatus sexlineatus*)  
 Eastern slender glass lizard (*Ophisaurus attenuatus longicaudus*)  
 Eastern mud snake (*Farancia abacura abacura*)  
 Glossy crayfish snake (*Regina rigida rigida*)  
 Southeastern crowned snake (*Tantilla coronata*)  
 Common rainbow snake (*Farancia erythrogramma erythrogramma*)  
 Rough earthsnake (*Virginia striatula*)  
 Midland painted turtle (*Chrysemys picta marginata*)  
 Cumberland slider (*Trachemys scripta troostii*), adult needed  
 Ouachita map turtle (*Graptemys ouchitensis ouchitensis*)  
 Hawksbill (=Carey) sea turtle (*Eretmochelys imbricata*)  
 Kemp's (=Atlantic) Ridley sea turtle (*Lepidochelys kempii*)  
 Leatherback sea turtle (*Dermochelys coriacea*)

Amphibians:

Brimley's chorus frog (*Pseudacris brimleyi*)  
 Dwarf waterdog (*Necturus punctatus*)  
 Cow Knob salamander (*Plethodon punctatus*)  
 Pygmy salamander (*Desmognathus wrighti*)  
 Southern dusky salamander (*Desmognathus auriculatus*)  
 Blue Ridge spring salamander (*Gyrinophilus porphyriticus danielsi*)  
 New Jersey chorus frog (*Pseudacris feriarum kalmi*)  
 Southern zigzag salamander (*Plethodon ventralis*)  
 Lesser siren (*Siren intermedia*)  
 Cumberland Plateau salamander (*Plethodon kentucki*)  
 Atlantic Coast slimy salamander (*Plethodon chlorobryonis*)  
 Blue Ridge dusky salamander (*Desmognathus orestes*)  
 Shenandoah Mountain salamander (*Plethodon virginia*)  
 Striped southern chorus frog (*Pseudacris nigrita nigrita*)



If you have good quality photos of any of the species listed, please send them to or contact the following:

Amy Martin  
 VDGIF  
 4010 W. Broad St.  
 Richmond, VA 23230  
 (804)367-2211  
[martina@dgif.state.va.us](mailto:martina@dgif.state.va.us)

Anyone who dabbles in photographing other groups of wildlife (mammals, birds, fish, and invertebrates) is welcome to check with Amy about which of those species are needed in photographs on VDGIF's web site.

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**NOTICE: Submissions for *Catesbeiana* Vol. 24 No. 2 are due August 1, 2004!**

The deadline is being moved up a month earlier this year, since the fall meeting is planned for a few weeks earlier than usual. Please submit any papers, field notes, or artwork for *Catesbeiana* to: Dr. Steven M. Roble, Editor, *Catesbeiana*, Virginia Department of Conservation & Recreation, Division of Natural Heritage, 217 Governor St., Richmond, VA 23219, [sroble@dcr.state.va.us](mailto:sroble@dcr.state.va.us).

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**OTHER HERP-RELATED EVENTS****Herps and Urban Ecology "Conservation in an Urbanizing World." Theme of the 18th Annual Meeting of the Society for Conservation Biology  
July 30th to August 2nd, 2004 – Columbia University, NYC USA**

For General Information on the meeting go to <http://www.cerc.columbia.edu/scb2004/>

Information on other symposia, go to <http://www.cerc.columbia.edu/scb2004/symposia.html>

The following is the introduction to the special herp only Symposia to be given at this meeting. The text is from their website. The list of papers to be presented follows.

Amphibian and reptile conservation in human-dominated landscapes: patterns, processes and solutions

Organizer: Peter B. Pearman, Michigan State University

Goal: The expansion of urban and suburban development and agriculture result increasingly in the isolation of forest, permanent wetlands, temporary pools, grasslands and other habitats for reptiles and amphibians (collectively: herpetofauna). Habitat extent for many reptiles and amphibians may be greatly reduced in the urban and suburban environment, and avenues for dispersal, annual migration and recolonization are broken. Natural cycles of disturbance that once provided successional habitats for amphibians and reptiles along rivers have been disrupted as humans have stabilized riparian areas. Reptiles may face risks associated with increased predation and persecution, while both reptiles and amphibians experience heightened road mortality. Isolated populations in urban and peri-urban environments lose genetic diversity and may suffer reduced viability. These processes may contribute to the much-publicized global decline in herpetofaunal populations. Conservation biologists face multiple challenges in the highly anthropogenic environment. They are called upon to identify situations in which conservation value is imperiled and provide quantitative evidence of these impending losses. They do so with demographic, genetic, and behavioral data, as well as data on changing community composition. Studies vary in their use of observational field approaches, comparisons of natural and anthropogenic habitat, computer simulations, and experimental manipulations. Conservation biologists are also called upon to work with conservationists to develop feasible approaches to mitigating the effects of urbanization, by working to improve landscape permeability to animal movement, creating opportunities for animals to overcome specific barriers, and developing buffer zones and corridors for animals with complex patterns of habitat use. Biologists and conservationist also collaborate to identify and protect critical habitat and to provide data on the progress of management and conservation efforts. This symposium will address these issues through the following questions: 1. What aspects of the biology of herpetofauna, at behavioral, population and community levels, vary over time and in space in association with characteristics of human-dominated landscapes? 2. What are the behavioral and demographic mechanisms that generate these patterns? 3. In human-dominated landscapes, how have conservation measures used information on these patterns and/or processes, and either succeeded or failed to further the stabilization, recovery and persistence of populations and communities of reptiles and amphibians? This symposium brings together conservation biologists from Europe, America, Australia to exchange information on work that will guide efforts to conserve amphibians and reptiles in human-dominated landscapes. The focus is on 'dirty conservation', in landscapes where humans have the upper hand, population demography of reptiles and amphibians is altered, and the natural processes of colonization and migration have been disrupted. Because of the unique opportunity for the exchange of information between European and American workers,

this symposium brings a chance to share new science, case studies, and innovative management approaches with an international audience. The papers resulting from this symposium will be developed for submission as a special section in the peer-reviewed scientific journal Conservation Biology.

Papers to be presented:

- 1) Changing agriculture and amphibian conservation in Mediterranean landscapes: challenges and prospects. P. Beja & Alcazar, R. (ERENA Ltd, Portugal)
- 2). Road mortality and the demography of turtles. James P. Gibbs (State University of New York) W. G. Shriver (Marsh-Billings-Rockefeller National Historic Park) D. A. Steen (State University of New York)
- 3). Can humans and amphibians coexist? Tim R. Halliday
- 4). Winners and losers: the impacts of modifying natural landscapes on amphibian and reptile assemblages in eastern Australia. Jean Marc Hero, Hazell\*, D, Hodgkison, S and White, D. (Griffith University, Australia. \* Australian National University)
- 5). Ecological restoration in anthropogenic landscapes: Dead end roads or key for conservation A. Pagano (Ecologie Animale, Universite d'Angers)
- 6). Road-associated sources of mortality of amphibians and simple and complex approaches to mitigation. Benedikt Schmidt, Borgula, A, Ryser, Y and Zumbach, S. (Swiss Amphibian and Reptile Conservation Center KARCH)
- 7). Do gravel pits compensate for the loss of successional riparian shore habitats? A 15-years case study on Central European toads ( B. calamita, B. viridis ). Ulrich Sinsch (Institute of Integrated Sciences, Biology, University of Koblenz-Landau, Germany)
- 8). The influence of agricultural landscape mosaics on the connectivity in fragmented amphibian populations. Claire C. Vos (Alterra, Researchinstituut voor de Groene Ruimte Centrum Landschap, The Netherlands)

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**The Organization of Fish and Wildlife Information Managers (OFWIM) is issuing a final call for papers for their annual meeting (below).** Since recent conference themes have highlighted wildlife issues, we are particularly interested in uses of information technology in fisheries and fish restoration. Computer applications, databases, GPS, data loggers or PDAs, and Geographic Information Systems used to support fishery programs would all be of interest. Plus, you can take advantage of a luxury resort hotel at highly discounted prices.

Come join us in San Diego and show us your apps!

Bruce Schmidt

OFWIM Program Chair

## **FINAL CALL FOR PAPERS!**

**OFWIM 2004 Conference / Workshop**

**September 23-26, 2004**

**Paradise Point Hotel, San Diego, CA**

This is the **FINAL CALL** for papers for the annual conference of The Organization of Fish and Wildlife Information Managers, September 23 – 26 at the Paradise Point Hotel in San Diego, California. Take advantage of the **highly discounted rates** at this top quality resort hotel!

### **DEADLINE FOR ABSTRACTS HAS BEEN EXTENDED!**

The deadline for submitting abstracts for presentations and posters has been extended to **July 9**. Submit abstracts for presentations to Bruce Schmidt, Program Chair, at (503) 595-3113 or [bruce\\_schmidt@psmfc.org](mailto:bruce_schmidt@psmfc.org). Submit abstracts for posters to Beth Stys, Poster Session Chair, at (850)-488-6661 or [beth.stys@fwc.state.fl.us](mailto:beth.stys@fwc.state.fl.us).

### **CONFERENCE THEME**

The conference theme is **Partnerships and the Future of Fish and Wildlife Information Management**. We welcome a wide range of presentations that demonstrate the use of

information technology to manage and share information cooperatively in support of fish and wildlife management and restoration.

Within this theme, we are particularly interested in papers and sessions directed at the following topics:

1. Information Technology for Fisheries (including data management systems, use of GPS, GIS, etc.)
  2. Comprehensive Wildlife Conservation Strategy Development (status, examples of information management, GIS, etc.)
  3. Scientific Collection Permit Processes (and examples of how information management systems and GIS are used to obtain and use the information)
  4. New Database Systems and/or Re-Engineering Legacy Databases
  5. Technological Advances in Information Management (including use of PDA data collection, wireless technology, GPS units, etc.)
  6. How User-Friendly is Your Database System? (A workshop on how to see your system from the user's perspective and successfully meet their needs.)
  7. Habitat Restoration Projects (how information systems are used to track projects, expenditures, on the ground work, and project effectiveness)
  8. Use of Information Technology for Managing Marine Resources
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## **In Fairfax County**

**Ellanor C. Lawrence Park:**

### **July 14th**

#### **Evening Explorations: Frogs!**

8-9pm, Ellanor C. Lawrence Park, Walney Pond, 703/631-0013. Join a naturalist looking for our slippery friends. View bullfrogs and green frogs at the pond. Learn how to identify frogs by their calls and appearance. Bring flashlights and wear shoes that can get muddy and damp. Reservation required. FREE

### **August 24th**

#### **Reptile Search**

(12 yrs. & up), 9-11am, Ellanor C. Lawrence Park, Walney, 703/631-0013. Assist a naturalist with a reptile survey. Head out into the outback of Ellanor C. Lawrence Park searching, capturing, identifying and releasing snakes. Learn the habits and preferred habitats of our native snakes. Reservations required \$5

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## **Job opportunities**

### **Rattlesnake Technician**

**Clemson University**

**Clemson, SC**

**DESCRIPTION:** (1) Rattlesnake Technician needed 6 August - 19 November 2004 to assist graduate student with study on habitat use and resource partitioning of eastern diamondback rattlesnakes and canebrake rattlesnakes on the coastal plain of South Carolina. The position will be located at the Webb Wildlife Center in Hampton County, SC. Duties include performing radio-telemetric locations on both rattlesnake species (40%), conducting vegetation analysis on rattlesnake locations (50%), and assisting with a mark-recapture study (10%). Persons applying for the position must have some experience with identification and handling of snakes. Experience with handling of venomous snakes preferred, but not required. Experience with radio-telemetry also preferred, but not required. The position requires that the applicant be able to work independently, and be able to maintain a good attitude in hot, buggy conditions. Applicants must

also possess a valid driver's license. Housing is provided, but applicants must be willing to use their personal vehicle on the research site. Pay is \$5.15 hr, with a 40-hour work week.

**TO APPLY:** Download employment application from [www.state.sc.us/jobs/application](http://www.state.sc.us/jobs/application). Fax application and resume to Clemson University Human Resources along with cover letter stating job title (Rattlesnake Technician) and position number (7545). The fax number for Clemson University Human Resources is (864)656-1334. For additional information, contact Jayme Waldron at (843)368-4220 or email [jaymew@clemson.edu](mailto:jaymew@clemson.edu). **YOU WILL NOT BE CONSIDERED UNLESS CLEMSON UNIVERSITY HUMAN RESOURCES HAS YOUR APPLICATION ON FILE WITH THE CORRECT JOB TITLE AND POSITION NUMBER.** Closing date for applications is 23 July 04. Clemson University is an equal opportunity/affirmative action employer.

Jayme Waldron  
Clemson University, Dept. of Forest Resources  
Clemson, SC 29631  
(843)368-4220  
[jaymew@clemson.edu](mailto:jaymew@clemson.edu)

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## **JOSEPH W. JONES ECOLOGICAL RESEARCH CENTER HERPETOLOGY RESEARCH TECHNICIAN**

JOSEPH W. JONES ECOLOGICAL RESEARCH CENTER (ICHAUWAY, INC.)  
HERPETOLOGY RESEARCH TECHNICIAN

The Joseph W. Jones Ecological Research Center invites applicants for a Herpetology Research Technician III. The successful candidate will assist in studies of wildlife communities and habitat through supervision/training of temporary technicians, data collection, data analysis, and report writing.

Qualifications include a Master's degree in wildlife ecology/management or a related field. The successful candidate will have strong computer and organizational skills. Preference will be given to candidates with experience in amphibian and reptile ecology/research and wildlife/forest relationships. Experience using SAS, ArcGIS, ARC/INFO, and ARCVIEW are also preferred.

The 28,000-acre Research Center is located approximately 30 miles south of Albany, GA. The Center's research, education, and conservation programs focus on ecology and natural resource management. The site includes 16,000 acres of longleaf pine forests, over 1,000 acres of wetlands and 26 miles of two stream and river ecosystems.

Compensation is competitive and commensurate with qualifications and experience. A competitive benefits package is also included.

This position will remain open until a suitable applicant is located.

A letter of application, resume, and at least three references (with phone numbers) should be mailed to:

Herpetology Research Technician III  
**Attn:** Cindy Craft  
Joseph W. Jones Ecological Research Center  
Rt. 2, Box 2324  
Newton, GA 39870-9651

Alternatively, application materials can be faxed to (229) 734-4707 or emailed to [cindy.craft@jonesctr.org](mailto:cindy.craft@jonesctr.org). Questions concerning this position can be sent to [lora.smith@jonesctr.org](mailto:lora.smith@jonesctr.org).

The Joseph W. Jones Ecological Research Center is an equal opportunity employer.

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## Literature Review

This section contains a collection of recently published literature related to herpetofauna (especially of Virginia). This is not intended to be inclusive.

Allsteadt, J. 2003. Geographic variation in the morphology of *Crotalus horridus* (Serpentes: Viperidae). Ph.D. Dissertation, Old Dominion University, Norfolk, Virginia.

Baber, M. J. and K. J. Babbitt. 2004. Influence of habitat complexity on predator-prey interactions between the fish (*Gambusia holbrooki*) and tadpoles of *Hyla squirella* and *Gastrophryne carolinensis*. *Copeia* 2004 (1):173-177.

Bailey, L. L., T. R. Simons, and K. H. Pollock. 2004. Estimating detection probability parameters for *Plethodon* salamanders using the robust capture-recapture design. *Journal of Wildlife Management* 68(1):1-13.

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Blouin-Demers, G. 2003. Precision and accuracy of body-size measurements in a constricting, large-bodied snake (*Elaphe obsoleta*). *Herpetological Review* 34(4):320-323.

Bowen, K. D. 2003. Ontogenetic changes in the coloration of the northern watersnake, *Nerodia sipedon sipedon*. *Journal of Herpetology* 37(4):729-731.

Chen, C. Y., Hathaway, K. M. & Folt, C. L. (2004) Multiple stress effects of Vision® herbicide, pH, and food on zooplankton and larval amphibian species from forest wetlands. *Envtl. Toxicol. & Chem*: 23; 823-831.

Conner, R. N., D. C. Rudolph, D. Saenz, R. R. Schaefer, and S. J. Burgdorf. 2003. Growth rates and post-release survival of captive neonate timber rattlesnakes, *Crotalus horridus*. *Herpetological Review* 34(4):314-317.

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Gunzburger, M. S. 2003. Evaluation of the hatching trigger and larval ecology of the salamander *Amphiuma means*. *Herpetologica* 59(4):459-468.

Hecker, L., D. M. Madison, R. W. Dapson, and V. Holzherr. 2003. Presence of modified serous glands in the caudal integument of the red-backed salamander (*Plethodon cinereus*). *Journal of Herpetology* 37(4):732-736.

Hobson, C. S. and E. C. Moriarity. 2003. Geographic distribution: *Pseudacris nigrita nigrita* (Southern Chorus Frog). *Herpetological Review* 34: 259-260.

Linzey, D. W., J. Burroughs, L. Hudson, M. Marini, J. Robertson, J. P. Bacon, M. Nagarkatti, and P. S. Nagarkatti. 2003. Role of environmental pollutants on immune functions, parasitic infections and limb malformations in marine toads and whistling frogs from Bermuda. *International Journal of Environmental Health Research* 13:125-148.

Mazerolle, M. J. (2004) Amphibian road mortality in response to nightly variations in traffic intensity. *Herpetologica*: 60; 45-53.

Mitchell, J. C. 2003. Geographic distribution: *Crotalus horridus*. *Herpetological Review* 34(4):387.

Moseley, K. R., S. B. Castleberry, and S. H. Schweitzer. 2003. Effects of prescribed fire on herpetofauna in bottomland hardwood forests. *Southeastern Naturalist* 2(4):475-486.

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Nickerson, M. A., K. L. Krysko, and R. D. Owen. 2003. Habitat differences affecting age class distributions of the hellbender salamander (*Cryptobranchus alleganiensis*). *Southeastern Naturalist* 2 (4):619-629.

Pinch, F. C., and D. L. Claussen. 2003. Effects of temperature and slope on the sprint speed and stamina of the eastern fence lizard, *Sceloporus undulatus*. *Journal of Herpetology* 37(4):671-679.

Pollio, C. A. and S. L. Kilpatrick. 2002. Status of *Pseudacris feriarium* in Prince William Forest Park, Prince William County, Virginia. *Bulletin of the Maryland Herpetological Society* 38(2): 55-61.

Regrosin, J. V., B. S. Windmiller, and J. M. Reed. 2004. Effects of conspecifics on the burrow occupancy behavior of spotted salamanders (*Ambystoma maculatum*). *Copeia* 2004(1):152-158.

Semlitsch, R. D. (ed.). 2003. Amphibian Conservation. Smithsonian Institution Press. pp. 336.

Shepard, D. B. 2004. Seasonal differences in aggression and site tenacity in male green frogs, *Rana clamitans*. *Copeia* 2004(1):159-164.

Yurewicz, K. L., and H. M. Wilbur. 2004. Resource availability and costs of reproduction in the salamander *Plethodon cinereus*. *Copeia* 2004(1):28-26.

Zacharow, M., W. J. Barichivich, and C. K. Dodd, Jr. 2003. Using ground-placed PVC pipes to monitor hylid treefrogs: Capture biases. *Southeastern Naturalist* 2(4):575-590.

## Virginia Native

For this issue's **Virginia Native**, the information below on the gray treefrog (*Hyla versicolor*) can be found on the website of the Virginia Department of Game and Inland Fisheries (VDGIF) as what is known as a 'short species booklet'. This is a shortened, less technical version of the 'booklets' that you can look up for each wildlife species in VDGIF's separate online system, the Virginia Fish and Wildlife Information Service (VAFWIS). To view the 'short species booklets', of which VDGIF currently has for reptile and amphibian species, go to VDGIF's home web page at [www.dgif.virginia.gov](http://www.dgif.virginia.gov), then click on 'Wildlife', and finally, click on 'Virginia Wildlife'. When you scroll down this page you should see links to Amphibians: Species Information and Reptiles: Species Information.



### Virginia Department of Game & Inland Fisheries



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## Virginia Wildlife Information

Photo (click to enlarge):



Occurrence Map:



gray treefrog (*Hyla versicolor*)

**Characteristics:** This is a large treefrog, 32-60 mm, with the females larger. It has a dark star-shaped pattern on the back, a light spot beneath the eye, and the concealed surfaces of the thighs are orange or yellowish. The back has many minute warts, and the belly is plain, light and unmarked. This species breeds from April to August. The eggs are brown and cream or yellow, laid in small packets of not more than 30-40 eggs on the surface of quiet pools. The voice is a lower frequency, melodious trill, lasting for 1-3 seconds and ending abruptly.

**Distribution:** This species is chiefly arboreal except during the breeding season. It occurs in the Virginia mountains north of the New River watershed, the Blue Ridge and the Piedmont. It breeds in roadside ditches, ponds and other shallow situations. The males defend the calling site.

**Foods:** It eats many insects and invertebrates. It is not often seen on the ground or at the water's edge, except in breeding season. Many forage aloft, chiefly in relatively small trees or shrubs that are near or actually standing in shallow bodies of water.

For more information, please see the [Virginia Fish & Wildlife Information Service](http://www.dgif.virginia.gov).

**NOTICE to Members:** If you have an email address, please send it to Paul Sattler, at [pwsattle@liberty.edu](mailto:pwsattle@liberty.edu). Then, for future issues of the newsletter, you will be notified via email upon its release on the website along with a provided link to it. Thank you for helping to save some trees, or should we say herp habitat!

# MEMBERSHIP APPLICATION

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: \_\_\_\_\_

Make check or money order payable to:  
**Virginia Herpetological Society**

Check Membership Type		
<b>Under 18</b>	<b>\$8.00</b>	_____
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<b>Family</b>	<b>\$20.00</b>	_____
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**VIRGINIA HERPETOLOGICAL SOCIETY**  
**4010 West Broad Street**  
**Richmond, Virginia 23230**

If your name is highlighted, your membership is up for renewal!