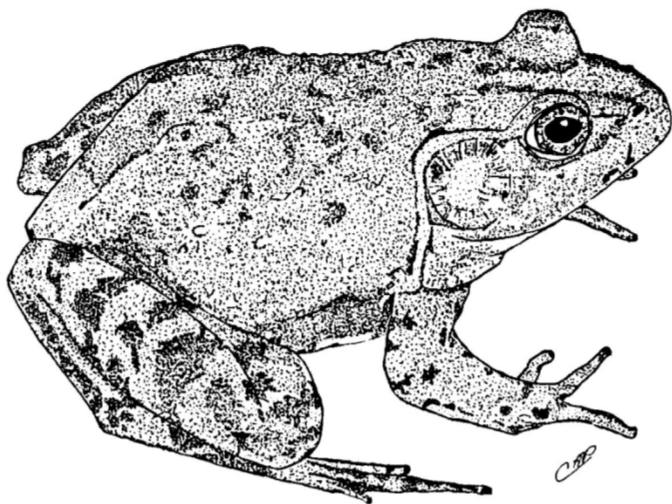


# CATESBEIANA



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## Contents

Third Annual HerpBlitz: Grayson Highlands State Park  
with side trips to White Top Mountain and adjoining streams.  
Jason D. Gibson .....71

Mark-recapture study of an isolated population of the  
Mediterranean Gecko (*Hemidactylus turcicus*) in  
Bedford County, Virginia.  
Kyle Harris .....84

Field Notes .....93

President's Corner .....102

Treasurer's Report .....103

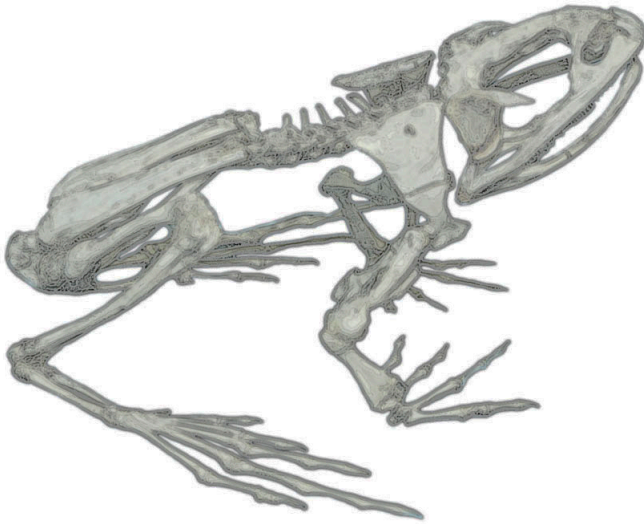
Minutes of the Spring 2009 Meeting .....104

Dr. Barbara A. Savizky Obituary .....106

Fall 2009 Meeting Notice .....107

2009 Membership List .....109

Next Meeting  
October 24, 2009  
Three Lakes Nature Park and Aquarium  
Henrico County  
See Pages107-108 for details.



**Third Annual HerpBlitz:  
Grayson Highlands State Park with side trips to White Top Mountain  
and adjoining streams.**

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**Introduction**

The third annual HerpBlitz was conducted in southwest Virginia at Grayson Highlands State Park 26-29 June 2008. This site was selected due to lack of sampling data from this region and its high potential for finding less common and endemic species. Grayson Highlands State Park is located in Grayson County and lies within the Blue Ridge physiographic province. The State Park is within the New River watershed. Jefferson National Forest and Mount Rogers National Recreation Area border the perimeter of the park. Adjacent to the park and visible from the peaks at the park are Mount Rogers and Whitetop Mountain, the highest peaks in the state of Virginia. The southern edge of the park has an elevation of 975 meters. This rises to Little Pinnacle, the highest peak at the park (elevation 1,551 meters). The park comprises 1,997 hectares. Grayson Highland State Park was established in 1965 and originally named Mount Rogers State Park. The park has a rich history with many park landmarks named after early settlers and hunters who lived or hunted within the currently established park boundaries. Of note, Massie Gap is named after a settler who lived with his wife and five children in the area. During the early 1900s large stands of virgin spruce and fir were heavily logged (Pague, 1984) leaving behind regrowth forest and balds. Fire and livestock grazing have prevented the regrowth of the spruce and fir stands in some areas. Consult Winegar and Winegar (2002) for a concise summary of habitats and trails within the park. During the course of the survey, short field trips were made to Whitetop Mountain, Little Laurel Branch (a stream adjacent to WhiteTop Mountain), and Cabin Creek as it intersects Route 58.

## Study Sites

### Grayson Highlands State Park Sites

Site 1: Stampers Branch Creek Trail (36°38'5.83"N 81°29'50.17"W \* GPS coordinates represent a reading taken at the central point of each study site.) (Friday, 27 June) - This trail is 2.75 km. long and begins at the park store. The trail winds through a mature forest comprised of red oak, yellow birch, red and sugar maple, and hemlock. The southeast side of the trail dips down into a ravine. Much of the forest floor is littered with fallen tree debris and rocks. During the course of our survey, two spring fed streams were crossed and searched. The second stream encountered was enclosed by a rhododendron thicket.

Site 2: Cabin Creek Trail (36°38'0.63"N 81°31'9.90"W) (Saturday, 28 June) - Cabin Creek Trail is 3 km. long. During the survey period we walked the entire trail, surveying the creek and surrounding wooded forest. Mountain laurel and flame azalea were in full bloom at the beginning of the trail. Cabin Creek is a small perennial stream with many rocks. It winds through a mature wooded forest with a similar tree composition as listed for the Stampers Branch Creek trail.

Site 3: Big Pinnacle Trail (36°37'46.74"N 81°30'23.84"W) (Saturday, 28 June) – This trail is a steep climb from the parking lot at Massie Gap to the top of Big Pinnacle (1,545 m elevation). Many rocks and fallen trees line both sides of the trail. The forest is mature and the views from the top are breathtaking.

Site 4: Stampers Branch Creek Trail (Saturday, 28 June) - See above description.

Site 5: Ranger house and surrounding habitat (36°36'29.73"N 81°29'34.40"W) (Friday, 27 June) - This site is the lowest elevation site within the State Park boundaries. This site consists of a small dammed pond, used for watering cattle and two cow pastures surrounding a stream with a small patch of hardwood forest. The stream is small and appears to be perennial. Many rocks and logs were covering the forest floor.

## Third Annual Herpblitz: Grayson-Highlands

### Other Sites outside Grayson Highland State Park

Site 6: White Top Mountain (Friday, 27 June) (36°38'19.47"N 81°36'19.66"W) – The top of White Top Mountain is one of the most interesting habitats the author has seen in Virginia. The forest consists of *Picea rubens* (Red Spruce) and *Abies fraseri* (Frazier Fir). The canopy is very dense and little light penetrates to the ground. Because of the dense canopy the forest floor is very moist. Moss grows over the surface of most forest floor objects. Like any evergreen forest, the floor is covered with a thin layer of needles. Many logs, branches, and rocks are on the forest floor. White Top Mountain is the second highest peak in Virginia with an elevation of 1,682 meters.

Site 7: Little Laurel Creek (Friday, 27 June) (36°40'17.58"N 81°37'27.78"W) – A short visit was made by three team members to this small stream which crosses county route 603 and is at the base of Whitetop Mountain. The Little Laurel is a feeder stream into Big Laurel Creek. In 1992 the VHS surveyed the Big Laurel Creek and discovered the shovel-nosed salamander (*Desmognathus marmoratus*) (Hayslett, 1992). It was the hope of this team to find this species.

Site 8: White Top Mountain (Sunday, 29 June) – See above description.

Site 9: Stream at intersection of Route 749 and Route 58 (36°36'18.82"N 81°31'16.85"W) (Thursday, 26 June) – Cabin Creek is a moderate sized stream draining parts of Grayson Highlands State Park. The creek is surrounded by *Rhododendron* thickets and has a bottom substrate comprised of a mixture of large and small cobblestone.

### Materials and Methods

The third annual Herp Blitz began the afternoon of 26 June and lasted until 1200 h on 29 June, 2008. For each site described above Table 1 indicates the number of surveyors, time spent surveying, and total number of person hours spent at each site. Collecting techniques used during the survey included over-turning cover objects, listening for calling anurans, visual encounters, road cruising, dipnetting, hand capture, and using baited hoop turtle traps. Each individual animal caught was inspected for general health and evidence of disease. Digital photos were taken of each different species collected. Each leader of a survey group recorded

the following information for each survey site: relative numbers of animals found, unusual behaviors exhibited by animals, microhabitat data, and diseases or malformations observed.

Table 1: The amount of survey effort for each research site.

	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9
Number of hoop net sets					2				
Number of surveyors	6	15	10	5	6	3	3	8	3
Hours surveyed	2	2	1	1	2	1	.1	1	1
Person hours of survey effort	12	30	10	5	12	3	.3	8	3

## Results

During the course of this four day event a total of 16 species of amphibians and reptiles were documented. Of the 16 species two were anurans, 12 were salamanders, and two were snakes. No turtles or lizards were found during the weekend. *Pseudacris crucifer* is not documented for Grayson County in Tobey (1985), Mitchell and Reay (1999), or the Virginia fwis database and is thus a county record. A voice recording of the lone male heard calling was not collected. Table 2 summarizes each species and the numbers of animals observed at each survey site. An annotated checklist follows. Numbers in brackets denote the survey sites where each species was documented.

### Third Annual Herpblitz: Grayson-Highlands

Table 2. Summary of the number of animals observed at each site.

	1	2	3	4	5	6	7	8	9	Total
Species										
<b>Amphibians</b>										
<i>Lithobates clamitans</i>					1					1
<i>Pseudacris c. crucifer</i>					1					1
<i>Desmognathus fuscus</i>	4									4
<i>Desmognathus monticola</i>	7	4		6	9		1		8	45
<i>Desmognathus orestes</i>	22	38		9	11		8		12	100
<i>Desmognathus quadramaculatus</i>	6	5		1	3				9	24
<i>Desmognathus wrighti</i>						1		2		3
<i>Eurycea wilderae</i>	1	1			3				2	7
<i>Gyrinophilus porphyriticus</i>	1									1
<i>Plethodon cinereus</i>	1		4			8		4		17
<i>Plethodon cylindraceus</i>	2				7					9
<i>Plethodon montanus</i>	22	40	44	5	28	9		4		152
<i>Plethodon welleri</i>						2		2		4
<i>Plethodon yonahlossee</i>	4	11								15
<b>Reptiles</b>										
<i>Diadophis punctatus</i>					1					1
<i>Thamnophis s. sirtalis</i>					2					2
Total Number of animals by site	70	99	48	21	76	21	9	12	31	387



**Annotated Checklist**

**Amphibians**

1. *Lithobates clamitans* (Green Frog) – [5]

Only one adult Green Frog was found in a man-made pond adjacent to the park ranger's residence. Several Green Frog tadpoles were dipnetted in the pond.

2. *Pseudacris crucifer crucifer* (Northern Spring Peeper) – [5]

One lone male Spring Peeper was heard calling around 0900 hours. This male frog was calling at the edge of the pond and near a wooded area. A search around the pond did not yield any adult animals or metamorphs.

3. *Desmognathus fuscus* (Northern Dusky Salamander) – [1]

Four adult Northern Dusky Salamanders were found under rocks along the spring fed streams at site one.

4. *Desmognathus monticola* (Seal Salamander) – [1,2,4,5,7,9]

*Desmognathus monticola* was the third most numerous salamander species found during the weekend. Forty-five Seal Salamanders were found under rocks and logs in or adjacent to streams.

5. *Desmognathus orestes* (Blue Ridge Dusky Salamander) – [1,2,4,5,7,9]

The Blue Ridge Dusky Salamander was the second most commonly found salamander at the survey sites. It was found at six sites, none of these sites were the highest altitude sites. All animals were found under rocks and logs. This *Desmognathus* species was not found in streams but rather in the woodlands surrounding streams.

6. *Desmognathus quadramaculatus* (Black-bellied Salamander) – [1,2,4,5,9]

Black-bellied Salamanders were found under rocks in streams. A total of 24 animals were discovered.

## Third Annual Herpblitz: Grayson-Highlands

### 7. *Desmognathus wrighti* (Pygmy Salamander) – [6,8]

Pygmy Salamanders were found only on White Top Mountain. All were found under logs. Pague (1984) searched Grayson Highlands State Park for *Desmognathus wrighti* and *Plethodon welleri* in 1983 but did not find any during his sampling time period.

### 8. *Eurycea wilderae* (Blue Ridge Two-lined Salamander) – [1,2,5,9]

Only seven 2-lined salamanders were found. One specimen taken from site five was tested using protein gel electrophoresis and found positive for the marker for the Blue Ridge Two-lined Salamander. Other 2-lines found during the survey were not tested but upon visual inspection did have the physical characteristics for the Blue Ridge 2-lined Salamander. Without positive electrophoresis results, the other 2-lined Salamanders could be *Eurycea cirrigera*.

### 9. *Gyrinophilus porphyriticus* (Spring Salamander) – [1]

A larval Spring Salamander was found in a small stream at site one. One other larva was found in this stream but was not developed enough to positively identify as *Gyrinophilus porphyriticus*.

### 10. *Plethodon cinereus* (Red-backed Salamander) – [1,3,6,8]

Red-backed Salamanders were found at three sites. Two of these sites, Big Pinnacle Trail and White Top Mountain, were the highest elevation sites that were surveyed. These salamanders seem to be able to inhabit mixed spruce/fir and mixed hemlock, oak, birch, maple forests. All animals were found under logs.

### 11. *Plethodon cylindraceus* (White-spotted Slimy Salamander) – [1,5]

Nine White-spotted Slimy Salamanders were discovered under logs at sites one and five. The two sites both consisted of mature forests with small nearby streams.

12. *Plethodon montanus* (Northern Gray-cheeked Salamander) –  
[1,2,3,4,5,6,8]

The Northern Gray-cheeked Salamander was found at six sites. 148 individual adults and juvenile salamanders were found during the weekend. This species was found at the lowest elevation sites at Grayson Highlands State Park and also the highest elevation sites. All animals were found under rocks or logs. One juvenile found under a log was observed to have anophthalmia (Figure 1). Upon visual inspection it appeared the eye never developed but the specimen was not preserved or inspected by an expert in malformations. A search of the North American Reporting Center for Amphibian Malformations (NARCAM) ([http://www.nbii.gov/portal/server.pt?open=512&objID=386&&PageID=1101&mode=2&in\\_hi\\_userid=2&cached=true](http://www.nbii.gov/portal/server.pt?open=512&objID=386&&PageID=1101&mode=2&in_hi_userid=2&cached=true)) and Beamer & Lannoo's (2005) recent summary of *Plethodon montanus* yielded no reports of anophthalmia in this species.

13. *Plethodon welleri* (Weller's Salamander) – [6,8]

Weller's Salamanders were only found on White Top Mountain. All animals were found under logs. See Roble (2004) for a complete review of this species' distribution in Virginia.

14. *Plethodon yonahlossee* (Yonahlossee Salamander) – [1,2]

A total of 15 Yonahlossee Salamanders were found at sites one and two. One small salamander was found in a log, the rest of the salamanders were found under logs. *Plethodon yonahlossee* was not found on Whitetop Mountain (despite two searches) and the high elevation site in Grayson Highlands State Park. Pope (1950) reports finding this species on Whitetop Mountain even at elevations of 1,646 meters. The two sites where Yonahlossee were observed were at elevations around 1,219 meters. Hoffman (1992) summarizes his 40 years of searching for this species and states that Yonahlossee prefers elevations of 1,000-1,333 meters; our observations harmonize with his summary.

## Third Annual Herpblitz: Grayson-Highlands

### Reptiles

#### 15. *Diadophis punctatus* (Ring-necked Snake) – [5]

The search around the park ranger's residence produced one adult Ring-necked Snake. This animal was found under a large log at the edge of a mature forest. Phenotypically this snake had no half moons or spots on its venter and a full yellow ring around its neck, consistent with *Diadophis p. edwardsii* the Northern ring-necked Snake.

#### 16. *Thamnophis sirtalis sirtalis* (Eastern Gartersnake) – [5]

Only two Gartersnakes were found at site five. One snake was found under a log and the other snake was found under a piece of tin in a scrap pile near a park work shed.

### Discussion

The Grayson Highland area has a unique assemblage of species with interesting biogeographical implications. For the species list generated from this survey three major groups of herps are inferred. The first group is the Blue Ridge endemics. These species are specifically found only in the Blue Ridge Mountains. The Blue Ridge endemics include: *Desmognathus orestes*, *Desmognathus wrighti*, *Eurycea wilderae*, *Plethodon montanus*, *Plethodon welleri*, and *Plethodon yonahlossee*. The second assemblage follows the Appalachian pattern. These species are associated with montane habitats of the Appalachian Mountains. Species following the Appalachian pattern include: *Desmognathus monticola*, *Desmognathus quadramaculatus*, and *Gyrinophilus porphyriticus*. The last group consists of species with statewide distribution. This group includes: *Pseudacris crucifer*, *Lithobates clamitans*, *Desmognathus fuscus*, *Plethodon cinereus*, *Thamnophis sirtalis*, *Diadophis punctatus*, and *Plethodon cylindraceus*. The assemblage of organisms obtained from this site is a vestige of a much different time period and any interpretation must take into account the climatic and botanical composition of the past.

Grayson Highlands State Park faces many challenges. How do resource managers develop plans to promote the continuation of species weighed against the pressure from the public to use the land for recre-

ation? Initially I was stunned to learn that this state park allowed hoofed animals to graze freely in certain sections. In addition, Grayson allows horses to be stabled within park confines. Grazing in the Massie Gap area has allowed the formation of an open meadow. This is a unique characteristic of the park which I found to be aesthetically pleasing is detrimental to many species of salamanders which require moist leaf litter and soil. There are several species that may have historically existed in Grayson but were probably extirpated by logging and forest fires (ie. *Desmognathus wrighti* and *Plethodon welleri*). These species are found in surrounding habitats and would probably immigrate to this area if the appropriate habitat was allowed to regenerate (ie Spruce, Fir forest). The grazing ponies and cowpasture at the southern edge negatively impact amphibians. Montane ecosystems found within the park boundaries are rare in Virginia and are sensitive to the effects of climate change and drought. More research and data collection should occur in the park to allow for long term monitoring of the health of this rare ecosystem. In regards to reptiles and amphibians, debris piles make excellent habitat. The debris around the ranger's house was some of the best habitat surveyed for snakes. Debris should be allowed to collect wherever it falls. A park cleared of woody debris is not in the interest of herps.

This survey was too brief and too limited in scope to make a final list of reptiles and amphibians for the Park. Future work in the area should include calling anuran surveys in the southern part of the park during spring and summer. With some effort the following anuran species might be added to the park's species list: *Lithobates catesbeianus*, *Lithobates palustris*, *Lithobates sylvaticus*, *Pseudacris brachyphona*, *Hyla chrysoscelis*, *Anaxyrus americanus* and *Anaxyrus fowleri*. Drift fence arrays and more time constrained searches may perhaps yield the following species of salamanders: *Ambystoma maculatum*, *Plethodon richmondi*, *Eurycea longicauda longicauda*, *Notophthalmus viridescens viridescens*, *Pseudotriton ruber*, and *Pseudotriton montanus*. Perhaps additional baited hoop turtle traps could catch *Chelydra serpentina*. *Terrapene carolina* have been found near the ranger's house (Kevin Kelley per. comm.). Elevation is a major impediment to finding additional snake species and lizards. After reviewing Mitchell and Reay (1999), the species most likely to be found on park property include: *Plestiodon fasciatus*, *Sceloporus undulatus*, *Agkistrodon contortrix mokasen*, *Carphophis amoenus amoenus*, *Coluber constrictor*, *Pantherophis alleganiensis*, *Lampropeltis traingulum*, and *Nerodia sipedon*. A complete survey of this park would

## Third Annual Herpblitz: Grayson-Highlands

be of interest in this montane situation to allow for documentation of species migrating into the park due to a warming climate. Baseline data is needed now to document these changes. Health assessments and population data of all species are also warranted to detect the spread of infectious disease. *Batrachochytrium dendrobatidis*, is an introduced parasitic chytrid fungus which is causing devastation to many species of amphibians around the world. This fungus has been detected in Virginia. Any amphibian found dead should be preserved in 95% denatured ethanol and sent to a lab with the capacity to test for BD. Chytridiomycosis is one of several diseases that managers of Grayson Highlands should be knowledgeable about. Ranaviral infections and ichthyophonosis are two other diseases recently reported in amphibians in Virginia (Ware et.al, 2008; Gibson & Ware, 2008; Gibson et.al, 2007). Contaminated fishing equipment is a possible vector in the spread of these diseases. Park managers should be on the look out for anything that looks out of the ordinary. The Virginia Herpetological Society should be contacted if any dead or diseased amphibians or reptiles are found.

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Figure 1. *Plethodon montanus* exhibiting anophthalmia.



**Mark-recapture study of an isolated population of the  
Mediterranean Gecko (*Hemidactylus turcicus*) in  
Bedford County, Virginia.**

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In September 2006 a lizard was collected from the floor of a classroom at Liberty High School, Bedford, VA as the light was turned on in the early morning hours. This lizard was later identified as the Mediterranean gecko, *Hemidactylus turcicus*, an invasive species almost unknown in Virginia at the time. Additional specimens were observed and reported in Sattler et al. (2007). Liberty High School has been open since 1964 in rural Bedford County and geckos were first sighted there as early as 1988.

Earlier reports on populations of the Mediterranean gecko in Virginia include Knight (1993), Kleopfer et al. (2006) and Sattler et al. (2007). Fowler (1915) first described *H. turcicus* (from the Mediterranean) as *H. mabouia* (from West Africa) and his finding was later redescribed (Townsend et al., 2003) as the earliest record in the southern U.S., dating back to 1910. From that time additional records continued to be reported throughout the southeast (Meshaka et al., 2006) and west to California (Beaman et al., 2005). The most northern record of the species was reported by Norden and Norden (1991) from Baltimore, MD, approximately 333 km north of Bedford, VA. The closest known population of *H. turcicus* to the isolated population in Bedford is in Lynchburg, VA (Sattler et al., 2007), approximately 33 km east.

The purpose of this study was to investigate the ecology and natural history of this isolated population using mark-recapture methods. To this end data were gathered to (1) examine the relative abundance and distribution of *H. turcicus*, (2) examine the micro-distribution for patterns, and (3) examine reasons for the distribution such as refuges and lighting.

Previous observations indicated that an established breeding population existed at this site (Sattler et al., 2007), but it was not known how large the population was or the extent to which the Bedford campus was occupied. Few studies are available on *H. turcicus* life history traits (Punzo, 2001), and no detailed studies have been conducted to establish population densities or sex ratios in Virginia.

# Mediterranean Gecko Mark-recapture Study

## Study site

This study was conducted on the campus of Liberty High School, in a rural environment adjacent to Bedford City, situated at the foot of the Blue Ridge Mountains near the Peaks of Otter. A majority of previous records (Meshaka et al., 2006) indicated that this species is more closely associated with urban environments, but rural environments have also been reported (Treadwell, 1962). It was unusual however, to find *H. turcicus* at a rural campus location situated away from the city near open fields and only a few homes. The buildings surveyed on campus are separated by 5–16 m and only the science building has sporadically placed bushes. The outer brick wall of the science building (the building covers about 1450 m<sup>2</sup>) was the primary focus of the mark-recapture study. Adjacent buildings include the gym, cafeteria, janitor's building, and shop. Preliminary sightings noted geckos in these buildings. The auditorium, two main academic buildings, library and office were not included in this study. The exterior of all buildings are constructed primarily of brick with the exception of the gym and cafeteria which have metal siding above the main outer brick wall surface.

## Materials and Methods

The majority of observations and collections were from the outer walls of the one-story brick science building. Juvenile mark-recapture began in September 2007 and lasted into October 2007. These collections took place during the morning, afternoon, and early evening hours. Individuals were marked by toe-clipping following the example provided by Ferner (2007) with slight modifications. These toe-clip combinations provided sufficient options for the present and follow-up studies.

The concentrated efforts to estimate the population in the science building began on 17 June 2007 and ended on 3 July 2007 including a total of 11 mark-recapture events. Nocturnal surveying began at 2100 and ended around 0100 based on the peak activity hours reported by King (1959). The east side of the science building faces a parking lot. The north, south, and west walls faces the other buildings (gym, cafeteria, janitor's building, and shop) which were only used in a visual count survey.

A clockwise search pattern around the building was used each night, beginning in the back right east side of the building. A headlamp was used

to locate the geckos on dark walls and they were caught by hand or net on the wall. It was found that gently tapping the wall near lights usually encouraged geckos to emerge where they could be guided down with nets for hand capture. The geckos were immediately processed and released at the point of capture. Each gecko was given a unique mark (toe-clip). Additional measurements included snout-vent length (SVL) to the nearest mm (using a clear ruler) and weight in grams (using an Ohaus PS121 series field scale). Gender was recorded along with whether a female was gravid using the candling technique (Selcer, 1986). Males were determined by the presence of anal pores (Rose and Barbour, 1968). A map of the building was used to record the position of each gecko. The lighting varied from partial to full illumination on the east and west walls, partial illumination/total darkness on the south wall; and partial illumination on the north wall. The Schnabel (Smith and Smith, 2001) method was used to generate a population estimate based on mark-recapture results.

### **Results and Discussion**

Based on the juvenile data collected fall 2007 and adult data collected summer 2008, a thriving breeding population exists at this site. The ratio of males to females slightly favored the females with 53.5% in a sample of 118 geckos collected and marked over 11 days. Most literature reports a 1:1 ratio (Punzo, 2001; Selcer, 1986; Rose and Barbour, 1968).

The SVL ranged from 22-61mm (Figure 1) and was broken into four cohorts based on Selcer (1986) and Saenz (1996). The mean SVL of the younger juveniles was 24.9mm, n=23; the mean SVL of the older juveniles was 33.75mm, n=12 (this is part of the group from the fall juvenile collection); the mean SVL of the second year individuals was 44.96mm, n=25; the mean SVL of the three plus year olds was 57.84mm, n=87. My captures were limited to the outer wall near the ground. It could be that the younger cohorts were primarily foraging in other parts of the building. However, females are noted to forage closer to the ground based on their stomach contents (Saenz, 1996) and this could account for a higher percentage in the number of females captured in this study. It was rare to capture a gecko observed on the top of the wall. At times they would run down the wall when approached, apparently going towards the light from the headlamp, making them more likely to be captured. Gomez-Zlater et al. (2006) stated that the light sources around the building are one of many

## Mediterranean Gecko Mark-recapture Study

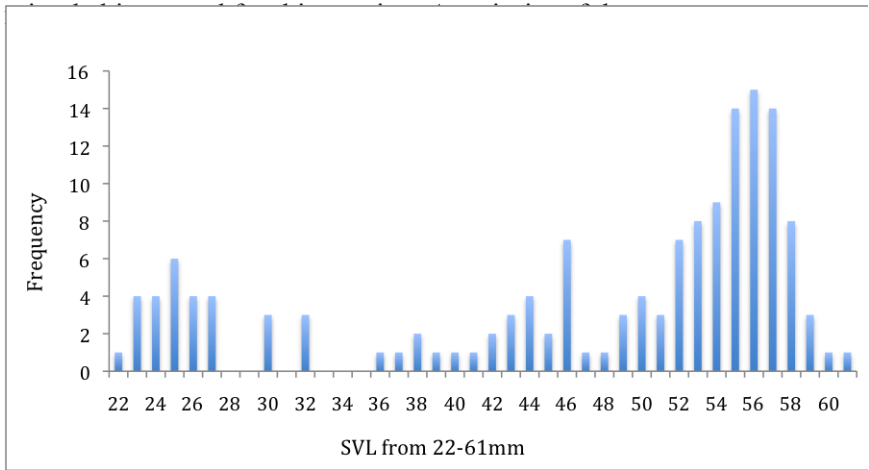


Figure 1. Observed Snout Vent Length Frequency - Cohorts fall into the following categories based on Saenz (1996): Young Juveniles <29 mm., Older Juveniles 30-39 mm., Second Year 40-49 mm., 3+ Year 50-61mm.

microhabitats used for this species. A majority of the geckos sighted were found up against or under the wall's light fixtures and could be observed making quick attacks on moths and other invertebrates and then rushing back to the shadows of the light fixture. Some geckos were found on the horizontal walls over door enclosures or the horizontal paneling surrounding many of the buildings, but the majority of the geckos were observed on vertical walls as described by Vogrin and Miklic (2005). The greatest abundance of geckos was found around the outer walls of the science building. These walls provided many retreats (cracks or holes), multiple doorways, vents, and lighting allowing the geckos to seek shelter (Luiselli and Capizzi, 1999).

The Schnabel estimate of the population size was 176 geckos in the science building. This estimate translated into 1213 geckos per hectare. This is similar to the reported size/ha of other studies (Selcer (1986) reported 544-2210 lizards/ha; Punzo (2001) reported 497-1463 lizards/ha). Adjacent buildings were observed to yield about half the total observed on the outer walls of the science building. The mean number of geckos counted per night was as follows: science=43.82; gym=21.29; cafeteria=17.29; janitor's building=19.43; shop=17.78. The number of recaptures per nightly survey ranged from 1 on the second night up to as many as 13.

The capture method of using nets on long poles and hand capture worked well. The success rate of capture was approximately 50%. Other methods that have been suggested and not tried at this site include rubber bands and squirt guns (Nelson and Carey, 1993). Investigation and development of more suitable catch/trapping methods may prove useful for a continued population study.

Many different types of refuges are utilized by this species. They are found to utilize objects around the building, openings in walls, or even piles of lumber (Dixon, 1958). It was observed that many geckos sought refuge behind objects that rested along the building walls or behind foliage that was up against the outer walls. Trash cans and crates were moved closer to the walls and the following nights these generally produced one or more geckos that used the objects for shelter during foraging. No geckos were seen moving about in the foliage, but one gecko on the south side of the gym was regularly seen on a pillar approximately 2 m away from the wall.

No predation on the geckos was observed during this summer survey, but potential predators were noted. A feral cat roamed around the buildings on several nights and potentially catches geckos (Punzo, 2001). Two toads and a gray tree frog were seen under the lights after days of heavy precipitation. The toads and gray tree frog were feeding, but it is uncertain if these have any effect on the gecko population. The only predation observed to date in this population was in the fall of 2007 where three juveniles were found caught in spider webs near the floor inside the science building. One juvenile that had been marked in the fall was found alive in a spider web with its left rear limb shriveled as it had been fed upon by a nearby spider. On all three occasions the geckos did not survive. Additional observed juvenile mortality resulted from the occasional gecko that was stepped on.

The degree of illumination around the building seemed to be an indicator of the abundance of geckos to be found foraging. The east and south walls of the science building, where the lighting was not as bright, yielded the greatest number of sightings, while the more illuminated walls on the north and west had the lowest numbers of geckos. Partial to full illumination yielded the fewest mean number of geckos observed each night (north  $n=5$  and west walls  $n=5$ ). The lighting was partial on the east wall ( $n=19$ ) where the highest totals were observed. Complete darkness to partial lighting is

## Mediterranean Gecko Mark-recapture Study

found on the south wall (n=15) where the second highest mean number of geckos were collected and observed. This wall also contained a series of bushes along the base of a majority of the wall. The west and east walls had a few bushes and the north wall had none. As many as eight geckos were clumped around or under lights sources. Generally, two to three were found together around lights or they were found alone or in pairs on other parts of the wall. Frankenberg (1984) reports that this species is most commonly found in groups of no more than 3-5 individuals. It should be noted that the more illuminated walls had geckos foraging in full light and they could be found at all levels on the wall. As a generalist, these geckos would be expected to be found around the lights feeding on moths and beetles and closer to the ground feeding on more ground dwelling invertebrates (Saenz, 1996).

The dispersion pattern was expected to be clumped based on the lighting, but the west and north walls of the science building were close to having more random/uniform dispersion patterns. This could be a result of the lighting associated with those walls and lower overall mean numbers of geckos sighted during the survey on those walls.

It was previously reported that this population may have escaped from a terrarium (Sattler et al., 2007). It may be more likely that this population was founded from fruit imported annually from Florida for a fruit sale. Although this cannot be proven it could be tested by checking the source and various shipping locations for established gecko populations.

A main condition that seems to be limiting this species from moving further north is the availability of suitable refuge (Bauer, 2000). It is unknown if any members of this population reside totally inside the buildings. No foraging behavior has been observed inside. Geckos have been observed active in and around the buildings as late as December (juveniles) and as early as 1 January during cold temperatures (temperature during this time was around 4.4 °C). The limits based on the time for breeding and foraging also seem to be preventing this species from expansion (Meshaka, et al. 2006). Despite these limitations, it was found in this mark-recapture study that an established breeding population of the exotic species *H. turcicus* is thriving on the campus of Liberty High School.

## Acknowledgments

I wish to thank my principal Dr. Cherie Whitehurst for allowing me to conduct my nocturnal gecko census on the LHS campus. I thank my advisor, Dr. Tamara Smith, at the University of Nebraska at Kearney for her support in pursuing this project. I also thank former professors Dr. P. Sattler and Dr. N. Reichenbach for their encouragement and advice in pursuing this project as I took the plunge. The assistance of R. Okimoto, J. Phillips, and M. Phillips in accompanying me on several of my nocturnal forays to count and mark geckos is gratefully acknowledged. Finally, I thank my wife and children for their patience as I spent many hours in the field and away from home.

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## Field Notes

***Lampropeltis getula getula* (Eastern Kingsnake).** VA: Prince George Co., Intersection of Rt. 10 and Rt. 639 (Flower Dew Hundred Rd.) (37° 14' 53.51" N; 77° 9' 3.79" W). 26 May 2009. J.D. Kleopfer and R. Niccoli.

County Record: On 26 May 2009, an Eastern Kingsnake (*Lampropeltis getula getula*) was found DOR (dead-on-road) near the intersection of Rt. 10 and Rt. 639 in Prince George County. This observation is a new county record and fills a hiatus in the distribution of this species in Virginia (Mitchell J.C. and K.K. Reay. 1999. Atlas of Amphibians and Reptiles in Virginia. Special Publication No. 1, Virginia Department of Game and Inland Fisheries, Richmond, VA. 122 pp.). A digital image has been deposited in the VHS archives (Digital voucher #124).

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***Lampropeltis calligaster rhombomaculata* (Mole Kingsnake).** VA: Surry Co., Route 611 (Salisbury Road). (37° 9' 56.13" N, 77° 1' 37.94" W). 1 June 2009. J.D. Kleopfer and R. Niccoli.

County Record: On 1 June 2009, a Mole Kingsnake (*Lampropeltis calligaster rhombomaculata*) was found crossing Route 611 (Salisbury Road) in Surry County. After taking several photographs, the snake was moved to the side of the road and released unharmed. This observation is a new county record and fills a hiatus in the distribution of this species in Virginia (Mitchell J.C. and K.K. Reay. 1999. Atlas of Amphibians and Reptiles in Virginia. Special Publication No. 1, Virginia Department of Game and Inland Fisheries, Richmond, VA. 122 pp.). A digital image has been deposited in the VHS archives (Digital voucher #122).

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***Farancia abacura abacura* (Eastern Mudsnake).** VA: Charles City Co., Rt. 155 (Courthouse Rd.) (37° 25' 41.37" N; 77° 2' 19.04" W). 10 May, 2009. Chuck Starkey.

County Record: On 10 May 2009, Chuck Starkey found an Eastern Mudsnake (*Farancia abacura abacura*) DOR (dead-on-road) where Rt. 155 crosses the Chickahominy River in Charles City County. This observation is a new county record and is the first documented occurrence of this species north of the James River (Mitchell, J.C. 1994. The Reptiles of Virginia. Smithsonian Institution Press, Washington DC. 352 pp.; Mitchell J.C. and K.K. Reay. 1999. Atlas of Amphibians and Reptiles in Virginia. Special Publication No. 1, Virginia Department of Game and Inland Fisheries, Richmond, VA. 122 pp.).

Since Two-toed Amphiumas (*Amphiuma means*) have been well-documented in Charles City County (FWIS Database), it is not too surprising to also find the Eastern Mudsnake. The Eastern Mudsnake is sympatric throughout much of its range with the Two-toed Amphiuma, one of its primary food items (Petranka, J.W. 1998. Salamanders of the United States and Canada. Smithsonian Institute Press, Washington DC. 587 pp; Gibbons, J.W. and M. E. Dorcas. 2005. Snakes of the Southeast. University of Georgia Press, Athens Georgia). Digital images have been deposited in the VHS archives (Digital voucher #116-117).

**John (J.D.) Kleopfer and Susan Watson**

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***Hyla squirella* (Squirrel Treefrog).** VA: York Co., Yorktown, 113 Davids Way (37.17202 N, 76.462569 W). 17 July 2009. Timothy P. Christensen.

County Record: On 17 July 2009 at approximately 1830 h a Squirrel Treefrog was heard calling near the residence of 113 Davids Way, Yorktown, Virginia. Heavy rain and thunderstorms occurred approximately 30 minutes prior to hearing the call. The individual frog could not be found visually, but its proximate location was determined by its call. The

## Field Notes

frog was located adjacent to a house in landscape vegetation consisting of herbaceous *Impatiens* and *Hosta*, and *Buxus* shrubs. The general area can be described as a residential subdivision constructed in 1984. Most housing lots are approximately 0.2 hectare in size and contain various hardwood and pine species (young and mature), shrubs and flower gardens. Water sources in the area consists primarily of stormwater drainage ditches, a few small garden ponds and a stormwater retention pond located approximately 183 meters from the calling treefrog. I personally identified other anurans in this residential area previously, including Fowler's Toad (*Anaxyrus fowleri*), Eastern Narrow-mouth Toad (*Gastrophryne carolinensis*), Green Frog (*Lithobates clamitans*), Green Treefrog (*Hyla cinerea*) and Cope's Gray Treefrog (*Hyla chrysoscelis*); however, this is the first confirmation of a Squirrel Treefrog. According to Mitchell and Reay (1999. Atlas of Amphibians and Reptiles in Virginia. Special Publication Number 1, Virginia Department of Game and Inland Fisheries, Richmond, VA, 122 pp.) this species was not recorded for York County, constituting a new county record. Steele (2007. Catesbeiana 27: 40-46) reported newly recorded populations in the Oyster Point area of Newport News and Sandy Bottom Nature Park in Hampton, Virginia in 2006. The approximate straight line distance from the Newport News population to this York County observation is 9.27 km. The circumstances of the squirrel treefrog calling were similar to those reported in Steele (2007). The call was recorded using an Olympus Stylus 1030SW and deposited in the VHS archive (#131).

### **Timothy P. Christensen**

113 Davids Way  
Yorktown, VA 23692

### ***Farancia erythrogramma erythrogramma* (Common Rainbow Snake).**

VA: King William Co., (37° 34' 6.83" N 76° 56' 0.85" W). 24 April 2009.  
Travis Harrell, Wade Harrell, Lindsey Pyne & John White.

On 24 April 2009, at approximately 1500 h, a large adult *Farancia e. erythrogramma* was discovered under 7 to 10 cm of leaf litter that was being cleared away by TH. The snake had a total length of 145 cm and a snout-to-vent length of 130 cm. Because erythrogramma is rarely seen in the wild, this observation is being reported. Digital images were deposited in the VHS Digital Archive (#118-120).

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**Wade Harrell**

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**John White**

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***Anaxyrus americanus* (American Toad).** VA: Prince William Co.,  
Manassas. 18-24 April 2009. William Johnson.

Reproduction: In toads, males come to breeding sites and begin calling to attract females. When females are seen, males will amplex them and remain attached until the male has fertilized eggs laid by the female. Sometimes several males will struggle over which will amplex and mate a particular female, resulting in a “mating ball” of one female and up to a half dozen males struggling over position on the back of the female. Amplexus typically lasts for one or two evenings, that being the time required for the female to ovulate and deposit eggs after arriving at the breeding site. This is a report of prolonged amplexus in the American toad, *Anaxyrus americanus*. A pair of toads was observed at a backyard pond on the morning of 18 April 2009. They were repeatedly observed in amplexus as late as the morning of 24 April for a total of 6 days in amplexus. Male toads can be aggressive breeders, amplexing males and females of other species for short periods of time. However, this is an usually long time for most anurans to remain in amplexus. The female was alive and appeared healthy, moving about the area for the 6 days before the pair disappeared. A digital photo (#121) of the amplexed pair was deposited in the VHS archive.

**William M. Johnson**

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## Field Notes

***Storeria dekayi dekayi* (Northern Brown Snake).** VA: Fairfax Co., Mason District Park. 25 April 2009. John M. Orr and Ayman Sirhan.

Size Record: On 25 April 2009 at Mason District Park, a northern brown snake was found crossing a paved trail near the restrooms. The snake measured 325 mm snout-vent length and 397 mm total length. It weighed 15.7 g. The longest brown snake recorded was 527 mm (Ernst, C.H. and E.M. Ernst. 2003. Snakes of the United States and Canada. Smithsonian Institution Press, Washington DC. 668 pp.). The longest northern brown snake recorded from Virginia was 300 mm snout-vent length and 379 mm total length (Mitchell, J.C. 1994. The Reptiles of Virginia. Smithsonian Institution Press, Washington DC. 352 pp.). This specimen thus constitutes a new size record for Virginia.

### **John M. Orr**

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***Pseudemys concinna floridana* (Florida Cooter).** VA: Isle of Wight Co., Route 258 (Courthouse Highway). (36° 54' 46.26" N, 76° 42' 39.93" W). 31 May 2009. J.D. Kleopfer and T. Bidrowski.

Size Record: The largest Florida Cooter (*Pseudemys concinna floridana*) recorded in Virginia had a maximum straight-line carapace length of 270 mm and a maximum plastron length of 247 mm (Mitchell, J.C. 1994. The Reptiles of Virginia. Smithsonian Institution Press, Washington DC. 352 pp.) On 31 May 2009, a female Florida Cooter was captured in Great Swamp behind the Isle of Wight Courthouse. This individual had a maximum straight-line carapace length of 290 mm and a plastron length of 266 mm. Measurements were taken with a 40 cm Haglof tree caliper. A digital image has been deposited in the VHS archives (Digital voucher #123).

### **John (J.D.) Kleopfer and Tom Bidrowski**

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***Pseudemys concinna concinna* (Eastern River Cooter).** VA: Cumberland Co., (37° 33' 41"N 78° 11' 06"W). 30 May 2009. Dennis Omby.

Size Record: Dennis Omby, of Cumberland County, observed a large adult female eastern river cooter on Rt. 45 on May 30, 2009. He captured it, kept it for a few days to take measurements and photographed it. After the measurements were verified, Dennis released it near the site of capture. Dennis sent his digital photographs that showed the measurements to the Virginia Department of Game and Inland Fisheries. John D. Kleopfer and I verified the measurements in the photographs. This specimen represents a new state record for a maximum known carapace length of 317.5 mm (12.5 inches) for this species. The plastron length ties the maximum known plastron length for this species, 297 mm (11.7 inches). Previously, the maximum known carapace length, in Virginia, for eastern river cooter was 310 mm. (12.2 inches). Meanwhile, the state record plastron length remains tied at 297 mm (11.7 inches). (Mitchell, J.C. 1994. The Reptiles of Virginia. Smithsonian Institution Press, Washington DC. 352 pp.). Dennis's digital photographs were submitted to the VHS Archive as #139-140.

**Susan H. Watson and John (J.D.) Kleopfer**

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***Coluber constrictor constrictor* (Northern Black Racer).** VA: City of Newport News, Fort Eustis Military Reservation, (37° 8' 30.4" N, 76° 36' 14.93" W). 27 April 2009. Timothy P. Christensen.

Diet: On 27 April 2009 at approximately 1345 h (weather conditions consisted of clear skies, air temperature of 31.7° C, relative humidity of 33% and wind speed of 4.34 knots), an adult male Northern Black Racer was discovered DOR near the center of a hardened surface road on the U.S. Army, Fort Eustis Military Reservation. Close examination revealed significant trauma presumably caused by a motor vehicle. This trauma caused partially digested prey to be expelled. An adult Southeastern Five-lined Skink (*Plestiodon inexpectatus*) and a juvenile male Rough Greensnake (*Opheodrys aestivus*) had been consumed by the Racer possibly with a short period between the two predation events based

## Field Notes

on the limited extent of digestion. The total length (TL) of the Racer was 1,170 mm and snout to vent length (SVL) was 915 mm. The SVL of the skink measured 66 mm. Most of the tail was missing precluding TL measurement. The TL of the Rough Greensnake was 446 mm and SVL was 175 mm. Linzey and Clifford (1981, Snakes of Virginia. University of Virginia Press. 173 pp.) report racers feeding on a variety of prey including small mammals, birds and bird eggs, lizards, anurans, insects and other snakes of which snakes comprised 26% and lizards comprised 6% by volume. Mitchell (1994, The Reptiles of Virginia. Smithsonian Institution Press, Washington DC. 352 pp.) reports the following prey recorded from racers in Virginia: butterflies and moths, June bugs, cicada nymphs, dusky salamander (*Desmognathus fuscus*), frogs (*Rana* spp.), spring peeper (*Pseudacris crucifer*), fence lizards (*Sceloporus undulatus*), skinks (*Eumeces* spp.), northern watersnakes (*Nerodia sipedon*), worm snakes (*Carphophis amoenus*), ring-neck snake (*Diadophis punctatus*), smooth green snake (*Opheodrys vernalis*), garter snakes (*Thamnophis sirtalis*), red-winged blackbird (*Agelaius phoeniceus*), white-eyed vireos (*Vireo griseus*), warblers, sparrows, bird eggs, chipmunks (*Tamias striatus*), common moles (*Scalopus aquaticus*), short-tailed shrews (*Blarina* spp.), unidentified shrews (*Sorex* spp.), white-footed mice (*Peromyscus leucopus*) and southern flying squirrel (*Glaucomys volans*). This observation may be the first documented occurrence of a Racer preying on a Rough Greensnake in Virginia. A photograph was taken of the specimen and deposited in the VHS archive as # 141.

**TIMOTHY P. CHRISTENSEN**

**JAMES D. DOLAN**

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***Pantherophis alleghaniensis* (Eastern Ratsnake).** VA: York Co., Newport News Park, vicinity of Deer Run Golf Course. February 2009. Timothy Christensen.

Diet: In February 2009 (neither the actual date nor respective weather data was recorded), visitors to Newport News Park discovered a dead adult Eastern Ratsnake along the edge of a mixed forest adjacent to the golf course. Apparently the specimen was partially extended out of a hole in the ground when found and was taken to the Newport News Park Discovery Center where it was retained in a freezer. Upon examination by Newport News Park staff, it was obvious that the snake had completely swallowed a golf ball. The total length was 1,373 mm and SVL was 1,143 mm. The golf ball was lodged in the body 635 mm from the snout. Further examination of the specimen revealed damage to the body wall whereby the ball had actually broken completely through the tissue; however, it is uncertain whether this may have been contributed by freezing, decomposition or weather phenomena. No other external damage to tissue was evident. It is uncertain as to when the snake consumed the golf ball and when it died but the condition of the specimen suggests it died as a result of swallowing the golf ball. Mitchell (1994. *The Reptiles of Virginia*. Smithsonian Institution Press, Washington, DC. 352 pp.) cites bird eggs being among the preferred prey of this species and cites Uhler et al (1939. *Food of snakes of the George Washington National Forest, Virginia*. *Trans. 4th North American Wildl. Conf.*: 605-622) as describing consumption of bluebird (*Sialia sialis*) and either grouse or quail eggs as well as snake eggs. This case suggests the individual mistook the golf ball for an egg and was unable to expel the non-food item. Digital photos have been deposited in the VHS Digital Archive (#133-134).

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## Field Notes

***Nerodia sipedon sipedon* (Northern Watersnake).** VA: Fairfax Co., (38° 38' 35" N, 77° 11' 59" W, Elev. 2.4 m.) John White.

Color Variant: On 28 April 2009, at approximately 1730 h, an aberrantly patterned juvenile northern watersnake was discovered swimming in a small pond just east of the Potomac River. The snake had a total length of 280 mm. On 09 May 2009, at approximately 1100h another uniformly patterned juvenile *N. sipedon* of similar size was observed 14.6 km northeast at 38° 45' 15"N, 77° 06' 21"W, Elev. 10.7 m. Uniformly patterned northern watersnakes have been documented in the area by Mitchell (Mitchell, Joseph C. 1994. The Reptiles of Virginia. Smithsonian Institution Press, Washington D.C. pages 235 - 236.) These recent sightings indicate that uniformly patterned *N. sipedon* are still present in the region as documented by Mitchell. (Digital images were deposited in the VHS Digital Archive (#137-138).

### **John White**

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***Notophthalmus viridescens viridescens* (Red-spotted Newt).** VA: Bedford Co., Otter Lake – Blue Ridge Parkway (milepost 61). 8 April 2009. Libby Hellman.

Color Variant: While exploring the lowlands at the north end of Otter Lake between 2pm and 4pm on 8 April 2009, we sighted multiple red-spotted newts in a slow-moving tributary. The stream appeared to be roughly 12 inches deep at the center, with a width ranging from several inches to several feet. Red-spotted newts were found among submerged leaves and we collected several for observation. Upon our return home we noted that one (of six) had a different appearance than the others. An extensive online search did not yield a positive ID, which led us to ask local members of the VHS if they could help us identify the species. Joy Ware forwarded our request to John White, who confirmed identification of an anerythristic Male Red-Spotted Newt. Anerythristism is the lack of red pigments in an animal. A digital image has been deposited in the VHS Archive (#132).

### **Libby, Whitney, Jeremy and Sanford Hellman**

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Midlothian, VA 23112

## President's Corner

This has indeed been a busy year for VHS! Four surveys and several special events and educational programs have taken place this year, along with the production and maintenance of our publications and website materials. All of the 2009 surveys have been successful with not only opportunities to see and record several species of herpetofauna, but also great opportunities for members to get together, meet new faces, and enjoy some wonderful areas and habitats within the Commonwealth. Please checkout the VHS website for the summaries of all these events, including photos of many of the specimens, as well as of some of the participants and scenery.

The year is not over yet! We are still busy planning for the 2009 VHS Fall Symposium, which will be on October 24th at Three Lakes Nature Center and Aquarium in Henrico County (just north of Richmond). Our keynote speaker will be Dr. Reid Harris, of James Madison University, who will discuss his groundbreaking research into a possible treatment and prevention of the 'chytrid' fungus that is affecting so many amphibian species around the world. Please look for the announcement and details on pages 107-108 in this issue of *Catesbeiana*, the latest VHS Newsletter, and on the VHS website.

Also coming up this year, very soon, is the Virginia Natural History Society Symposium, titled "Historical Explorations into Virginia's Natural History", on September 26, 2009, in Martinsville. This will take place in the Virginia Natural History Museum in Martinsville. VHS will be a sponsor for this event with at least one or two members attending, and more are welcome to register and attend. A link to information on this event is provided on the VHS website's "Calendar of Events" section.

In planning for all the upcoming events this fall, I am also planning for stepping back to the "Past President" role, to make way for a new VHS President when elections are held on October 24th as part of the VHS Business Meeting during the Fall Symposium. My term has been very fulfilling and very busy. I have greatly enjoyed getting to know many of you more and working with everyone more. I still plan to be quite active for a long time to come. I wish the best of luck to the next VHS President and Vice President, and any other new officers we gain in October.

Of course, all of the VHS officers and members deserve multitudes of thanks for all the hard work they do in keeping the VHS going and going

strong!

Susan Watson  
VHS President

**Virginia Herpetological Society  
Treasurer's Report**

Balance on Hand September 2008 \$5,697.92

Receipts:

October Dues:	\$195.00
Fall Silent Auction:	\$254.50
Fall Live Auction:	\$465.00
Book Sales:	\$531.00
November Dues:	\$120.00
December Dues:	\$111.00
January Dues:	\$475.00
February Dues:	\$269.00
March Dues:	\$150.00
Paypal Back Payment	\$214.90

Total Receipts \$ 2785.40

Disbursements:

Catesbeiana 28(2)	\$427.64
Turtles of the Southeast order	\$581.44
Presenter Lunches	\$ 58.25
Fall Meeting Food	\$220.35
VHS Awards	\$173.87
Student Paper Awards	\$150.00
Honorarium	\$250.00
VHS 2009 Grant	\$500.00
Spring Meeting Space	\$ 55.65

Total Disbursements \$ 2417.20

Balance on hand April 7, 2009 \$6066.12

Patricia Crane  
VHS Treasurer

Virginia Herpetological Society  
Minutes of Spring Meeting  
Oconeechee State Park  
Clarksville, VA  
May 1, 2009

The Spring Meeting was called to order by our president, Susan Watson, around 6:15pm. Twenty-six members were in attendance. No old business was in need of discussion, therefore new business from each committee was covered.

Treasurer: The 2008 Fall Meeting was not as successful of a fundraiser as previous years because we spent more money than we received. Susan wants us to consider cost cutting measures to prevent this from happening in the future. Ideas were offered on where to cut costs, such as decreasing the amount of snacks and drinks purchased, lowering poster and presentation awards, and charging a registration fee; these ideas will be looked in to further when the planning begins for this year's meeting.

The VHS Store, also known as Cafe Press, is still in need of new material, with illustrations being the most desirable print. Pattie Crane hopes to update the site soon. She reports that Paypal access for our members is still on hold and is not available as a form of payment. She will notify us once the paperwork has cleared and this feature becomes available.

Newsletter editor and Yahoo Groups: Kory Steele reports the continued need for members to keep the society up to date with current email addresses. Emailing the newsletter cuts down on our environmental impact as well as cost. John will help with notifying the members by posting a notice on the website.

Kory continues with his goal of publishing the newsletter by January and July of each year. Deadlines for articles, pictures, reviews, and ideas will be the beginning of the month the newsletter comes out. He appreciates the help he has received from Joy and Tim with reviews and articles.

Catesbeiana editor: Paul Sattler reports that 190 copies were printed and 170 were mailed out for a total of \$559.44. The idea of distributing the journal by paper versus electronic was discussed. Formatting issues could cause a problem with converting the paper file into an electronic file. An-

## Minutes of Spring 2009 Meeting

other concern in going strictly electronic would be for collectors, who like to keep their paper copies.

Education Committee: Mike Clifford was not able to attend our Spring survey, but will provide a full report during the Fall meeting.

Conservation Committee: Tim Christensen reports that they are in the final stage of completing the conservation presentation, which will be given during a four hour workshop for Master Naturalist chapters. He would also like to revisit the idea of a “herp stamp”, which was discussed last year as well, and finalize this once we have obtained our non-profit status.

Research committee: Joy Ware reports that the research committee has a basic disease/abnormality information sheet that will be given out during this weekend's survey. Each group will have someone responsible for recording any externally observable disease data or malformations. This data will be collected in addition to the species data sheet currently used.

She also states that the VCU educational outreach group will be taking a group of Powhatan High School students and their teachers to the new Powhatan State Park and teaching them how to monitor wildlife, especially birds, reptiles and amphibians, as these species have not been fully surveyed and identified at this new park.

VHS Webmaster: John White reports that he is currently testing out a VHS forum. He will also begin working on an application for frog call and snake identifications for the iPhone.

After committee reports, Susan discussed the need for a new location for the VHS archives. It is currently stored at the Virginia Natural History Museum, but will need a new home soon. One possibility would be to store the archives at Liberty University. Susan has requested J.D. Kleopfer to call around for other prospects, including professional curatorial departments. She will send him an email detailing the contents of the files, which are known to contain items such as new county records, pictures, and Franklin Toby's first atlas. The fall symposium has been scheduled for October 24 at Three Lakes Nature Center. The facility was recently remodeled and should provide a good atmosphere for our meeting. Guest speakers and a keynote speaker still need to be lined up. Options were discussed and Susan will decide soon after checking on the availability of

everyone.

The meeting ended in open discussion regarding the creation of a chapter of the Society in the Hampton Roads area. This region of VA has the highest concentration of VHS members and has the potential to generate more interest from new members. The chapter would create more involvement from the members who find the surveys difficult to attend, by organizing small activities and day trips. Other upcoming survey dates and locations were discussed. Paul is coordinating the Resource Ramble and will need registration forms completed prior to the survey date. Park guidelines and camping sites and lodging were covered for all surveys. Site details were given in how to prepare for the terrain and expected locations of the different species.

Emily C Steele  
VHS Secretary

### **Obituary:**

Dr. Barbara A. Savitzky of Norfolk, died July 22, 2009 at age 61 following the rapid progression of metastatic breast cancer. A resident of Norfolk for more than 20 years, Dr. Savitzky was an associate professor of biology at Christopher Newport University, from which she retired in 2008 after 18 years of service. She earned the B.A. and Ph.D. degrees from the University of Tennessee at Knoxville. An authority on the biology of amphibians and reptiles, Dr. Savitzky was known for her work on snakes (including Virginia's endangered Canebrake Rattlesnake), turtles, and salamanders. Born in Bridgeport CT, Dr. Savitzky served on the governing boards and committees of scientific and conservation organizations, including the International Herpetological Committee (World Congress of Herpetology), Conservation Committee and Endowment Committee (ASIH), Herpetological Taxa Committee (VaDGIF), VHS, SSAR, HL, Society for Conservation Biology, Society for Integrative and Comparative Biology, and the Animal Behavior Society. Dr. Savitzky was widely admired for waging a relentless battle against metastatic cancer, for which she received treatment almost continuously for more than 20 years. Dr. Savitzky will be missed by the herpetological community in Virginia for her long research program and the many students she trained to follow her fascination with Virginia's amphibians and reptiles.

## Announcement of the VHS 2009 Fall Symposium

Please join us for the VHS 2009 Fall Symposium! The Symposium will be held October 24th, at Three Lakes Nature Center and Aquarium, in Henrico County (just north of Richmond). Our keynote speaker will be Dr. Reid Harris, of James Madison University, who will discuss his groundbreaking research into possible treatment and prevention of the ‘chytrid’ fungus that is affecting so many amphibian species around the world. Please keep checking the VHS website for further details and for any updates. The setting of the Symposium is sure to please everyone, too. Three Lakes Nature Center and Aquarium has an impressive collection of live native Virginian and North American herpetofauna specimens, as well as several impressive and informative exhibits, a large freshwater aquarium featuring local freshwater fish species, and a great location within Three Lakes Park, which includes Three small lakes, two of which that allow fishing, picnic shelters, a playground, and several hiking trails around these lakes and into some of the mixed wooded and open areas. All details, including registration information and call for student papers and posters information can be seen on the VHS website’s “Calendar of Events” section ([www.vaherpsociety.com](http://www.vaherpsociety.com)). Registration is FREE, unless you wish to join us for a pizza lunch on the site for \$5/person through pre-registration.

VHS 2009 Fall Symposium Agenda  
At Three Lakes Nature Center & Aquarium,  
in Henrico County (400 Sausiluta Dr., Richmond, VA 23227),  
October 24, 2009

Ongoing – Student Posters on display, silent auction, photo contest voting, some items for sale.

8:30am – arrival, registration, submissions (photos, student posters, auction items), breakfast snacks, early behind-the-scenes tours.

9am – Dr. Joy Ware – Snake Force One presentation

9:30am – Jason Gibson & Dr. Paul Sattler – Natural History of the Eastern Spadefoot

10:00am – Tom Thorp – Project Bog Turtle



*CATESBEIANA* 2009, 29(2)

10:30am – break

10:45am – Dr. Reid Harris – Keynote Speaker – The role of antifungal bacteria in treating and preventing chytridiomycosis in amphibians.

12pm – lunch break (picnic shelter reserved in park) and behind-the-scene tours.

1:30pm – Live Auction

2:20pm – close both auctions

2:30pm – Student Oral Paper Presentations

4pm – break

4:15pm - close of photo contest, finalize judging of student papers, and giving awards, etc.

4:30pm - VHS Business Mtg

After 5pm – for those sticking around the area in the evening, feel free to join some officers and members who will be seeking out a good local restaurant for dinner and socializing.

## Membership Application

I wish to: \_\_\_\_\_ initiate

\_\_\_\_\_ renew

membership in the Virginia Herpetological Society.

Name:

Address:

email Address:

(VHS newsletters are sent electronically via email)

Dues Category: \_\_\_\_\_ Regular \$15  
\_\_\_\_\_ Family \$20  
\_\_\_\_\_ Under 18 \$8  
\_\_\_\_\_ Life \$225

Make Checks payable to the Virginia Herpetological Society

Mail dues to: Patricia Crane  
VHS Secretary/Treasurer  
71 Jefferys Drive  
Newport News, VA 23601

Visit the VHS website at <http://fwie.fw.vt.edu/VHS/>