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Photo: Mark Lethaby

A Partnership Project of The Mid-Atlantic Center for Herpetology and Conservation and The Pennsylvania Fish & Boat Commission
We are quickly approaching another winter, and most herps are already snugly tucked in hibernacula to remain unseen until the outside conditions of 2017 have improved to their respective likings. Stream salamanders are, of course, a major exception with record submissions for these amphibians continuing from many of our dedicated volunteers. A few frogs have made impromptu appearances on rainy nights, and we are still getting the occasional odd reptile record as well. Certain snake species make brief appearances outside their dens, and some aquatic turtles will haul out onto basking logs to take advantage of dwindling mild and sunny days. However, once winter sets in, field herping will slow to a crawl or cease entirely for many of us. Fortunately this lull will be brief, and before long the first warm rains of late winter waken our early vernal pool breeders, heralding the onset of a fresh field season.

During the impending herp-less period, we trust many of you will pass dark winter nights studying the quad block map search option on the PARS website, to determine which blocks and quads in your region still need records. We hope many of you will take this a step further this year, and strategize ways to access private properties in record-lacking blocks that do not contain publicly accessible lands. There are bound to be some near you; approximately 85% of Pennsylvania land is privately owned, and accessing much of it is the only way we will reach our minimum goals of 10 species per block and 25 species per quad.

Much of this land is not held by individuals, but rather by private companies and other institutions. It is often relatively easy to determine the ownership and appropriate person to contact to request access to survey. Some companies and institutions will not allow access to their land holdings for obvious reasons (e.g. correctional institutions) or due to liability concerns, but a surprising number may be accommodating to such a request.

Determining the identity of properties owned by individuals can sometimes be challenging. If a mailbox is present at the end of a driveway of a property, simply mailing a letter addressed to “Land Owner” along with the address on the mailbox can do the trick. We have a form letter for this purpose available for download on the PARS website (under the Downloadable Resources tab). Some properties may require a little detective work, such as obtaining a county tax map for the area. The WikiHow website is one resource that might be helpful for determining land ownership: http://www.wikihow.com/Find-Property-Owners

While it is important to be prepared for rejection by suspicious land-owners, many are surprisingly open to allowing access, and in many cases people are very interested in having a free biological survey conducted on their property. In fact, some of our volunteers are land-owners who found out about PARS by being asked for access to their land by other volunteers. Because so much of our state is held in private ownership, the odds are high that previously undetected populations of our rarest amphibian and reptile species are yet to be discovered - maybe by you. Wouldn't that be exciting?

Marlin Corn
PARS Statewide Coordinator
You might have noticed a recent spike in the number of records in our database. Over 12,000 historical records for Pennsylvania were recently entered after acquisition from the following institutions: Brigham Young University, California Academy of Sciences, The Chicago Academy of Science, Macaulay Library, Cornell University Museum of Vertebrates, Fort Hays Sternberg Museum of Natural History, Georgia Southern University, University of Kansas Biodiversity Institute, Natural History Museum of Los Angeles County, Harvard University Museum of Comparative Zoology, Milwaukee Public Museum, Minnesota State University Moorhead, The Museum of Vertebrate Zoology at Berkeley, North Carolina State Museum of Natural Sciences, Oklahoma Museum of Natural History, Ohio State University, University of Puget Sound, Royal Ontario Museum, San Diego Natural History Museum, Texas Cooperative Wildlife Collection (Texas A&M University), Texas Natural History Center (University of Texas, Austin), University of Arizona Amphibian and Reptile Collection, University of Colorado Museum, University of Michigan, University of Nevada at Reno, University of Texas at El Paso, Peabody Museum at Yale University.

A judging panel has been assembled, and we are now in the process of reviewing the entries. The judges have their work cut out for them, as we received a large volume of entries, with many outstanding images submitted. Winning photos will be featured in the upcoming winter newsletter.

Please welcome Sean Hartzell as our new coordinator for Montour County.
MARK YOUR CALENDAR!

Scheduled Herp-Blitz Field Trips:

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
<th>Location</th>
<th>Contact Information</th>
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<tbody>
<tr>
<td>Herp Blitz—Lawrence Co.</td>
<td>April 2017</td>
<td>(exact date and location to be announced)</td>
<td>Mark Lethaby - <a href="mailto:nw@paherpsurvey.org">nw@paherpsurvey.org</a></td>
</tr>
<tr>
<td>Herp Blitz—Montour Co.</td>
<td>May 6, 2017</td>
<td>(exact location to be announced)</td>
<td>Marlin Corn - <a href="mailto:mcorn@machac.org">mcorn@machac.org</a></td>
</tr>
<tr>
<td>Herp Blitz—Beaver Co.</td>
<td>May 27, 2017</td>
<td>(exact location to be announced)</td>
<td>Marlin Corn - <a href="mailto:mcorn@machac.org">mcorn@machac.org</a></td>
</tr>
<tr>
<td>Herp Blitz—Fulton Co.</td>
<td>June 25, 2017</td>
<td>(exact location to be announced)</td>
<td>Tom Pluto - <a href="mailto:sc@paherpsurvey.org">sc@paherpsurvey.org</a></td>
</tr>
<tr>
<td>Herp Blitz—Columbia Co.</td>
<td>June, 2017</td>
<td>(exact date and location to be announced)</td>
<td>JD Hartzell - <a href="mailto:columbia@paherpsurvey.org">columbia@paherpsurvey.org</a></td>
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PARS Informative Presentations & Volunteer Workshops:

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
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<tr>
<td>PARS Annual Meeting</td>
<td>March 25, 2017 @ 9:00 a.m.</td>
<td>Location to be announced.</td>
</tr>
<tr>
<td>Herp Survey of a newly restored wetland at Richard M. Nixon County Park.</td>
<td>March 17 @ 9:00 p.m.</td>
<td>Conducted in conjunction with the Lancaster Herpetological Society. Survey preceded by workshop decontamination procedures and how to participate in citizen science. Pre-registration is required: 717-428-1961. For more info contact: Kelsey Frey: <a href="mailto:york@paherpsurvey.org">york@paherpsurvey.org</a></td>
</tr>
<tr>
<td>PARS Volunteer Workshop &amp; Survey at Lacawac Sanctuary</td>
<td>May 6 @ 10:00 a.m. to 3:00 p.m.</td>
<td>94 Sanctuary Road, Lake Ariel, PA 18436 To register: 570-689-9494 For more info contact: Larry Laubach <a href="mailto:ne@paherpsurvey.org">ne@paherpsurvey.org</a></td>
</tr>
<tr>
<td>PARS Introductory Presentation by Sue Muller</td>
<td>June 19 @ 7:30 p.m.</td>
<td>South Mountain Audubon Society meeting, Adams County Agricultural Resource Center 670 Old Harrisburg Road, Gettysburg, PA. To register: <a href="mailto:SMAS@southmountainaudubon.org">SMAS@southmountainaudubon.org</a> or call 717-352-7936</td>
</tr>
</tbody>
</table>
Top left: Isabel Ploughright photographed an American Bullfrog with prey; a cardinal. Top left: Daniel Nydick documented a Queensnake eating a crayfish. Center left: Julia Kurtz photographed an Eastern Gartersnake eating a frog in her garden. Center right: May DeCamp discovered a pair of Easter Milksnakes dangling outside her livingroom window, in what appears to be courtship behavior. Bottom left: Stephen Kloiber discovered an Eastern Gartersnake devouring a Wood Frog. Bottom right: Daniel Welte photographed a pair of Five-lined Skinks engaged in apparent pre-mating courtship.
Highlights of the 2016 Fall Season

Salamanders
During the summer quarter, three Jefferson Salamanders were found crossing a road (one DOR) in Blair County; these appeared to be recently metamorphosed young, heading into the woodlands from a vernal pool site. Twenty-one Blue-spotted Salamanders were found at a known locality in McKean County. Twenty-two observations of Marbled Salamanders were received from nine different counties, including an interesting observation of 64 individuals walking around on the surface of a dry vernal pool. Marbled Salamander observations from Adams and Lycoming Counties appear to be county records. Six records for Green Salamanders were received from Fayette County, the only Pennsylvania County known to harbor this rare species. Two of these records are from new blocks, representing an important expansion of known range for Green Salamanders in Pennsylvania. Fifteen observations for Eastern Hellbenders were submitted, one of which appears to be a county record for Tioga County.

Frogs
A site for Eastern Cricket Frogs, discovered in the 1990’s and last visited in 2009, was visited and found to still have a thriving population of this rare species. Four verified observations for Northern Leopard Frogs came in, one of which adds a new block to Erie County. Seven submitted voucher recordings of Cope’s Gray Treefrog include three from Chester County, representing not only a county record but also a very significant range expansion for this species in Pennsylvania.

Lizards
Submissions for lizards were sparse for the reporting period. Twenty records of Five-lined Skinks, and 13 of Eastern Fence Lizards were submitted. Only three observations of Coal Skinks (Venango and Cameron County) were submitted, and no Broad-headed Skinks were observed.

Snakes
The same number of Northern Copperhead records was submitted as last quarter (29), a nice number for this cryptic and uncommon species. Two observations of Eastern Wormsnakes were submitted, both from a known locality. Fourteen records for Eastern Hog-nosed Snakes were submitted, with a Clinton County observation appearing to be a county record. A Fulton County observation is the first since 1988. A nice number of records came in for another uncommon Pennsylvania species, the Smooth Greensnake, and a Berks County observation represents a county record. A single observation of a Northern Rough Greensnake was made in a known locality. As usual, the three species with the highest number of observations were Eastern Gartersnake, Northern Ring-necked Snake, and Timber Rattlesnake.

Turtles
Summer appears to be a difficult time to locate our rarest turtle species; nine observations of Northern Red-bellied Cooters, only one observation of a Spotted Turtle, and no observations of Bog Turtles or Blanding’s Turtles were submitted during the summer quarter. One of the Northern Red-bellied Cooter observations appears to be a county record for Northampton County. A county record also appears to have been made with a Spiny Softshell observation in Perry County. Impressive numbers continue to come in for two Species of Special Concern: Wood Turtles (57 observations) and Eastern Box Turtles (101 observations). These numbers are much lower than the spring quarter, but both of these species become more difficult to locate during summer months.
Observations from the Field

Summary of vouchered records received from July through September 2016:
Please note that these numbers represent the number of blocks, not actual numbers of specimens.
Records not submitted by the end of the month may not be included.

Records listed here might not have yet passed through the verification process.

Salamanders
- Eastern Hellbender: 15
- Common Mudpuppy: 13
- Jefferson Salamander: 3
- Blue-spotted Salamander: 1
- Spotted Salamander: 31
- Marbled Salamander: 22
- Green Salamander: 6
- Northern Dusky Salamander: 251
- Seal Salamander: 38
- Allegheny Mountain Dusky Salamander: 273
- Northern Two-lined Salamander: 207
- Long-tailed Salamander: 96
- Northern Spring Salamander: 54
- Four-toed Salamander: 6
- Red-spotted Newt: 221
- Eastern Red-backed Salamander: 191
- Northern Slimy Salamander: 193
- Valley & Ridge Salamander: 2
- Wehrle's Salamander: 47
- Northern Red Salamander: 53

Frogs
- Eastern Cricket Frog: 1
- Eastern American Toad: 388
- Fowler’s Toad: 26
- Cope’s Gray Treefrog: 7
- Gray Treefrog: 16
- Gray Treefrog/unknown complex: 36
- American Bullfrog: 95
- Green Frog: 273
- Pickerel Frog: 119
- Northern Leopard Frog: 7
- Wood Frog: 73
- Spring Peeper: 25

Lizards
- Northern Coal Skink: 3
- Common Five-lined Skink: 20
- Northern Fence Lizard: 13
- Anolis spp.*: 1

Snakes
- Northern Copperhead: 29
- Eastern Wormsnake: 2
- Northern Black Racer: 28
- Timber Rattlesnake: 140
- Northern Ring-necked Snake: 162
- Eastern Hog-nosed Snake: 14
- Eastern Milksnake: 52
- Northern Watersnake: 89
- Northern Rough Greensnake: 1
- Smooth Greensnake: 18
- Eastern Ratsnake: 89
- Queensnake: 12
- Northern Brownsnake: 37
- Northern Red-bellied Snake: 48
- Shorthead Gartersnake: 13
- Eastern Gartersnake: 219
- Ribbonsnake: 4
- Mountain Earthsnake: 7

Turtles
- Spiny Softshell: 20
- Common Snapping Turtle: 58
- Painted Turtle: 70
- Spotted Turtle: 1
- Wood Turtle: 57
- Northern Map Turtle: 27
- Northern Red-bellied Cooter: 9
- Red-eared Slider*: 9
- Yellow-bellied Slider*: 1
- Eastern Musk Turtle: 9
- Eastern Box Turtle: 101

*introduced species
Challenging Species:
Genus Plethodon (woodland salamander species)

Collectively, *Plethodon* species are commonly referred to as 'woodland salamanders', a name which references the forested upland habitat in which they are typically found. Pennsylvania is home to five salamander species belonging to the genus *Plethodon*; the Eastern Red-backed Salamander (*Plethodon cinereus*), the Valley and Ridge Salamander (*P. hoffmani*), the Ravine Salamander (*P. electromorphus*), the Northern Slimy Salamander (*P. glutinosus*) and the Wehrle's Salamander (*P. wehrlei*). While most specimens of *P. wehrlei* and *P. glutinosus* are fairly distinctive, the other three species are more similar looking and can be confusing to the amateur field herper. Additionally, records submitted without close-up and detailed voucher photos can be difficult or impossible for our Verification Committee team members to verify. In this article we discuss the key features to look for, and to capture in photographs, for proper identification of Pennsylvania *Plethodon* species. A camera with macro capabilities is necessary to capture these traits.

The Eastern Red-backed Salamander is the most common and widespread salamander species in the Commonwealth, and anyone who has spent time looking for herps in forest habitat is undoubtedly familiar with it. Most enthusiasts are also aware that this species occurs in two basic color morphs; a red-striped morph, and a 'lead-backed' morph, which lacks the wide red stripe running down the length of the dorsum. On specimens with the dorsal stripe, the color of the stripe is actually variable, and though it is usually reddish, it can also appear brown, brass or gold in color. In most cases, a striped morph *P. cinereus* will not be confused with another species. However, a lead-backed specimen may be confused with other species, particularly *P. hoffmani* and *P. electromorphus*. It is important to examine and photograph both the dorsum and venter, and to count the costal grooves of any small, dark woodland salamander found in the known ranges of the latter two species. While the ranges of *P. hoffmani* and *P. electromorphus* do not appear to overlap (according to current data), *P. cinereus* can be found in almost any patch of Pennsylvania woodland, and is often found under the same log as other woodland species.

Eastern Red-backed Salamanders are typically described as occurring in a ‘red-phase’ or a ‘lead phase’, but dorsal coloring is highly variable. The photo above shows a ‘lead phase’ individual (upper left) and two different versions of the ‘red phase’. Photo: Ed Patterson

…..tips for improving field-herping skills
Handling salamanders is stressful to them, and prolonged handling can be harmful; their thin, permeable skin quickly desiccates in open, dry conditions. It can also absorb harmful salt from sweat or chemicals from insect repellents and hand lotions, so avoid using these products prior to surveying. Carry plastic zip-lock bags or other clear plastic containers, with a small amount of non-chlorinated water added to hold captured specimens. An advantage to using a clear plastic bag is the ability to fold the bag just above the specimen as it lies in the bottom, which will help immobilize it for close inspection and photographs. Alternatively, a clear, hard plastic container is ideal for viewing and photographing the venter of a specimen.

Counting and photographing costal grooves is important to the identification and verification of confusing salamander species. While the number of grooves can vary among individual specimens, each species has a typical number and range of numbers of grooves. For example, Eastern Red-backed Salamanders typically have 19 costal grooves, but the range is 17-22. Valley and Ridge Salamanders typically have 20-21 costal grooves, so if your specimen has fewer than 20, you know it is probably not a Valley and Ridge Salamander. However, Ravine Salamanders typically have 19-22 grooves, so a salamander found in, or close to, the known range for this species needs further examination. If your specimen has fewer than 19 costal grooves, it is likely to be a *P. cinereus*. When counting costal grooves, keep in mind that the groove immediately anterior to the hind leg is often forked into a ‘Y’; in these cases, both prongs of the ‘Y’ are counted as two separate grooves. Be sure to try to get a photograph that highlights the number of costal grooves of your specimen.

Close examination and photography of a specimen’s venter is also important for the identification and verification of the confusing woodland salamanders. Each species has a venter with a certain ratio of light and dark markings. The venter *P. cinereus* is often described as having a ‘salt and pepper effect’: light and dark reticulations occurring in a roughly 50/50 ratio, or with slightly more light than dark pigmentation. The venter of *P. hoffmani* will have more dark pigmentation that that of *P. cinereus*, except for the throat, which will appear lighter by comparison. The venter of *P. electromorphus*, including the throat, is predominantly dark, and often appears brownish in color.

The most posterior groove to be counted is sometimes forked, or ‘Y’ shaped. The two prongs of the ‘Y’ should be counted as two grooves.

In comparing *P. hoffmani* to *P. electromorphus*, notice the chin on *P. electromorphus* is darker.

Left and right photos: Jason Poston.
Center photo: Ed Patterson
Eastern Red-backed, Valley and Ridge, and Ravine Salamanders have varying amounts of silver-white flecking on the dorsum, but \textit{P. cinereus} tends to have less, with the markings more restricted to the sides. The other two species usually have a liberal amount of these markings on the dorsum, often with some bronze-colored flecks included. For verification purposes, clear photos of both venter and dorsum are important. It should also be noted that Four-toed Salamanders (\textit{Hemidactylium scutatum}) often have a reddish dorsum. This species is sometimes encountered under logs in upland habitat, and a specimen may be passed off as a red-striped phase \textit{P. cinereus} if only given a cursory glance. However, a quick look at the underside will reveal a bright white venter marked with bold black spots if, in fact, it is a Four-toed Salamander.

At least one photo should capture the entire length of the animal. Tail length can be helpful in discerning \textit{P. cinereus} from the other two species; its tail is roughly one-third of its total length, while the tail on \textit{P. hoffmani} and \textit{P. electromorphus} usually accounts for more than half of the overall body length in adults. In younger specimens, this is not necessarily the case and the tail can account for less than the total body length, making a costal groove count critical for proper identification. It should be noted that the range of the Valley and Ridge Salamander and that of the Ravine Salamander are currently not known to overlap, but they do come close in the southwestern region of the state. Surveyors in this part of the state should be aware of the possibility of overlapping ranges of these species.

The Northern Slimy Salamander and Wehrle's Salamander are generally distinctive and not difficult to distinguish from other Plethodonts. These are are robust salamanders with proportionately larger limbs, and grow much larger. Wehrle's Salamanders may grow to more than 5.5\textasciitilde, and Northern Slimy Salamanders to over 6\textasciitilde, but a young specimen can potentially cause confusion. A costal groove count, combined with other characteristics, should reduce uncertainty; Wehrle's Salamanders have an average of 17 costal grooves (range of 16-18), while Northern Slimy Salamanders have an average of 16 (15-17 range).
However, these two species may occasionally be confused with each other. Slimy Salamanders are black with a generous sprinkling of bold white spots over the dorsum. The dorsum on Wehrle’s Salamanders is dark gray to brown with pale yellow, white to blue-white markings along the side (occasionally some of these may be brass-colored), but the back is unmarked, or sparsely marked with tiny white flecks. Occasionally, a sparsely-marked Northern Slimy Salamander turns up and may be confused with a Wehrle’s Salamander, and vice-versa. Both of these species will have an unmarked venter which will be lighter in color than the dorsum. The venter of Wehrle’s is a clean, slate-gray color with a distinctive pale-yellow mottling in the throat area. The venter of a Northern Slimy Salamander will be darker gray to black, with no throat markings.

Slimy Salamanders (top left photo) are usually profusely marked with bright white spots, while Wehrle’s Salamander (middle left) is usually sparsely marked with light spots. Occasionally, a sparsely marked Slimy Salamander (bottom left) may be encountered. Viewing the venter can be helpful in making a positive ID; the venter of the Slimy Salamander is generally dark (left photo on ventral comparisons) compared to that of the Wehrle’s Salamander which also has a very light chin (right photo on ventral comparison).

As previously mentioned, the possibility of confusing species can happen even to experienced field herpers. Many have realized an initial identification was erroneous after examining their photographs later, or have had others point out a misidentification after a record was entered into the database. This is actually one of the benefits of the PARS website; many of our best volunteers regularly monitor records as they are posted, and can let you know of a mistake before it goes through the verification process. By capturing key characteristics of specimens in photographs, you can more confidently confirm or change your initial identification of a confusing species, after you have had a chance to examine your photos. This will also help ensure that your entries can be properly assessed by our Verification Committee, and increase the likelihood of your records passing the verification process.

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**Field Techniques Continued**
Good Field Protocol

Each issue of the PARS newsletter will highlight a different form of proper field protocol that PARS volunteers are urged to adhere to while surveying in the field. Following these protocols will help insure minimum impact to the environment and the animals we are seeking to document.

Don’t Pin Pit Vipers!

Pinning’ a snake is an old-school method of immobilizing a venomous specimen before picking it up. It involves pressing a snake hook, boot, or other object down on the specimen’s neck before ‘safely’ grabbing it right behind the head. This unnecessary practice not only results in many people being bitten, it is also incredibly stressful, and often harmful, to the snake. While it is sometimes necessary for professional biologists to capture pit vipers for valid research purposes, they use professional gear such as padded gripping tongs and plastic immobilizing tubes, which will not harm the snake. There is no good reason for anyone else to capture a pit viper. Pennsylvania’s pit viper species are generally easy to approach close enough for a voucher photo without disturbing the snake or endangering the surveyor.

WRONG!! Don’t do this!!! Pinning a snake causes it to thrash about and can result in damage to the vertebral column. Holding a snake by the neck can cut off its windpipe causing severe stress to the animal. These practices also result in numerous snake bites to people each year. The PARS project does not condone the handling of venomous snakes by its volunteers.

....and Etiquette
The following records appear to be the first observations of species in the associated counties during July, August and September of 2016:

Wayne Hildebrand: Franklin County - Queensnake
Cynthia Salisbury: Adams County - Allegheny Mt. Dusky Salamander
Sue Muller: Adams County - Marbled Salamander
John Wheatley: Perry County - Eastern Spiny Softshell
Gary Pluto: Fayette County - Wood Turtle
Nate Nazdrowicz: Chester County - Cope’s Gray Treefrog
Brandon Hunsberger: Clarion County - Northern Black Racer
Ben Russell: Lycoming County - Mountain Earthsnake
Mark Lethaby: McKean County - Northern Watersnake
Sebastian Harris: Clinton County - Eastern Hog-nosed Snake
Chris Bortz: Berks County - Smooth Greensnake
Chris Bortz: Wayne County - Red-eared Slider
Kyle Fawcett: Lycoming County - Marbled Salamander
Submitted by Email: Huntingdon County - Eastern Spiny Softshell
Submitted by Email: Tioga County - Eastern Hellbender

PARS volunteers who currently hold the top ten slots for the most quad-blocks surveyed since the project launch.
*(October 12, 2016 snapshot) **Tied for 7th place

Ken Anderson: 431 blocks
Kyle Loucks: 340 blocks
Kyle Fawcett: 267 blocks
Scott Martin: 257 blocks
Nate Nazdrowicz: 217 blocks
Ed Patterson: 210 blocks
Mark Lethaby: 210 blocks
Chris Bortz: 193 blocks
Tom Pluto: 177 blocks
Brandon Hunsberger: 159 blocks
Duane Stafford: 151 blocks

PARS volunteers who have the most records since the launch of the PARS project on June 1, 2013 through September 30, 2016:

Ken Anderson: 3,125 records
Duane Stafford: 3,068 records
Brandon Hunsberger: 2,962 records
Ed Patterson: 2,898 records
Kyle Fawcett: 2,247 records
My name is Chris Bortz and I am the Schuylkill County Coordinator for PARS. I have always enjoyed nature and hiking, but several years ago I found my niche in nature with photographing birds. I would drive all over to try and photograph rare and interesting birds. While this was something I truly enjoyed doing, it quickly became very boring for my girls. One of our local Audubon group field trip was a salamander walk, which we went on to try something different. Well, we all ended up coming home covered in mud and excited about the next time we could go do this again.

Thinking back, while at Middle Creek my oldest daughter (2½ years old at the time) grabbed a ring-necked snake that was crossing the road, and we literally had to pry the snake out of her hands so that we could leave, because she wanted to keep it for a pet. That I think is where our family’s herping obsession started.

This led to us acquiring several snakes as pets. At the prompting of a friend, we joined the local Herpetological Society. I will forever be indebted to Dave McNaughton (Dauphin PARS Coordinator & wildlife biologist FTIG) for the time, expertise, knowledge, and patience he has shown to our family while learning herps.

Once we started, we couldn’t stop. Once I saw a presentation about PARS at our Herpetology group, I then began what I would probably call an obsession about entering records into the database. I became Schuylkill County Coordinator about 1 year ago at the promoting of Mr. McNaughton and have been devoting quite a bit of time to exploring the county for new places to find herps.

As quoted by Ken Anderson, instead of taking vacations, we take “herpcations”, always looking to explore new areas of our state, looking to find new herp county species for us, and to help fill in the quad/block needs.

I have really enjoyed introducing my children to this activity, not only about the ins and outs about each herp, but also instilling a sense of responsibility to do their part to protect the habitats and the species found there.

Looking back, I would get so many looks from people thinking that I must be crazy, because I have my 2 little girls covered in mud from looking for salamanders, or them bragging about the snakes they found that bit them, but I wouldn’t want them any other way. I just love that my girls understand and respect these awesome creatures.
Species Spotlight
Northern Ravine Salamander
*Plethodon electromorphus*

The Northern Ravine Salamander is Pennsylvania's least common woodland salamander. The background color is brownish black to black, flecked with a varying amount of fine, silvery-white to golden specks. To a person who has never encountered one, it may resemble a Valley and Ridge Salamander (*P. hoffmani*), or a lead-phase Eastern Red-backed Salamander (*P. cinereus*). See the ‘Field Techniques’ column on page 4 for information on differentiating between these species.

**Range & Habitat:**
The range of the Northern Ravine Salamander is the most restricted of our Plethodontids. Since the launch of PARS, it has been verified only in Allegheny and Washington Counties, but there are confirmed historical records for Beaver, Fayette, Greene, and Lawrence Counties. Northern Ravine Salamanders are typically found under cover objects on steep, wooded slopes of ravines and valleys with small to medium streams. Rocks are more often used for cover than logs or other objects, and an abundance of flat rocks seems to be a key feature among the locations in which they are found.

**Search Strategy:** Like other woodland salamander species, Northern Ravine Salamanders are usually found under cover objects during the spring and autumn months; summer encounters are extremely rare. On rare occasions, they are observed above ground at night, when heavy or extended rain events saturate the ground.
NAME THAT HERP:

Shedding Some Light

The following photos are of skin sheds from Pennsylvania snake species, all of which have been verified. Try your luck at guessing the species identity for each.
NAME THAT HERP:
Shedding Some Light

G.  

H.  

I.  

J.  

K.  

L.
NAME THAT HERP:
Shedding Some Light

A. Eastern Gartersnake
   Photo: Ken Anderson

B. Eastern Ratsnake
   Photo: Jeff Rice

C. Eastern Milksnake
   Photo: Brandon Hunsberger

D. Northern Black Racer
   Photo: Brandon Hunsberger

E. Timber Rattlesnake
   Photo: Scott Pappentick

F. Northern Watersnake
   Photo: Brandon Hunsberger

G. Northern Brownsnake
   Photo: Andy Weber

H. Northern Ribbonsnake
   Photo: Brian Gray

I. Queensnake
   Photo: Brian Gray

J. Eastern Milksnake
   Photo: Brandon Hunsberger

K. Timber Rattlesnake
   Photo: Chris Bortz

L. Eastern Ratsnake
   Photo: Jeff Rice
Aneides aeneus
A.K.A. Green Salamander

Last confirmed sightings in Fayette County

Reward: Accolades of the herping community
Contact & Resource Information

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Contact & Resource Information

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Recommended Web Sites:
Pennsylvania Amphibian and Reptile Survey (PARS): www.paherpsurvey.org
The Mid-Atlantic Center for Herpetology and Conservation (MACHAC): www.machac.org
Pennsylvania Fish & Boat Commission (PFBC): www.fish.state.pa.us
Society for the Study of Amphibians and Reptiles: www.ssarherps.org
Northeastern Partners in Amphibian and Reptile Conservation: www.northeasparc.org
Maryland Amphibian and Reptile Atlas: www.marylandnaturalist.org