August 2013 Newsletter

What’s Inside

1. Greeting
2. Project Updates
3. Observations from the Field
4. Exceptional Herpers
5. Species Spotlight
6. Name That Herp
7. Wanted Species

A Partnership Project of The Mid-Atlantic Center for Herpetology and Conservation and The Pennsylvania Fish & Boat Commission
June 1, 2013, was a very significant date for herps and herpers in Pennsylvania: it was the official launch of the latest herp atlas project in our state; the Pennsylvania Amphibian and Reptile Survey (PARS). PARS is a partnership project between two herpetologically important institutions; The Mid-Atlantic Center for Herpetology and Conservation (MACHAC) and the Pennsylvania Fish & Boat Commission (PFBC). PARS is a ten-year project which is funded by the PFBC (via the U.S. Fish & Wildlife Service's State Wildlife Grants Program), the PA Department of Conservation and Natural Resources (Wildlife Resources Conservation Program), and MACHAC. The project has two primary objectives:

- To determine the distribution and status of all amphibians and reptiles throughout Pennsylvania, based on a vouchering system and building upon previous atlas efforts, combining modern technology with an army of citizen scientists. The final goal will be the publication of the most current known distributions of the commonwealth's herpetofauna.

- To develop a comprehensive, quality checked herpetological database. This ‘Master Database‘ will combine records from historical collections from museums, universities and other institutions, as well as records from the Pennsylvania Heritage Program, previous atlas efforts, grant-funded studies, records from private consulting work, etc. - essentially all available herpetological documentations in Pennsylvania. All of this data will be linked for the first time in the commonwealth, and will be an important tool for future conservation efforts. The database will eventually be administered by the PFBC.

Ultimately the information gained from this project will provide an invaluable tool in the conservation of Pennsylvania’s herpetofauna, providing critical information for researchers, land managers, and legislative decisions that affect these animals. A loftier goal of the PARS project is to foster a society that is aware of, and cares about one of its most delicate and misunderstood natural resources and its integral role in our natural landscape. If you are reading this newsletter, then you are probably one of a minority of Pennsylvania residents who truly appreciate the beauty, fragility and ecological importance of our state’s herpetofauna. We welcome you to the PARS project and we value your input; please feel free to communicate your ideas, concerns, etc. at any time: mcorn@machac.org. We are always eager to hear your suggestions as to how we can improve the PARS project. We also encourage you to spread the word; PARS needs as many volunteers as possible! Not only do volunteers provide data for this project, but volunteer efforts also help fund this project. PARS is a volunteer grant-match project. All volunteers are welcome, from the skilled professional scientist to the most amateur naturalist.

The PARS project has gotten off to a roaring start with thousands of records already logged since its launch. If you have not already done so, please consider signing up as a volunteer on the excellent PARS website: www.paherpsurvey.org. This is an engaging, highly interactive site that is user-friendly and easy to navigate.

We offer heartfelt thanks for your efforts and for your support of the PARS project. Let’s keep those records rolling in!

Have a safe and exciting field season.

Good herping,
Marlin Corn, PARS Coordinator
Meet the PARS Team

The PARS project is a partnership project between the Pennsylvania Fish & Boat Commission and The Mid-Atlantic Center for Herpetology and Conservation. We would like to introduce you to the key PARS players from these two organizations.

**The Pennsylvania Fish & Boat Commission (PFBC)** is the state agency responsible for the regulation, research and conservation of Pennsylvania's endangered species, and its herpetofauna. The PFBC works closely with the state's legislative branch and is a major force in the shaping of the commonwealth's laws which protect these precious resources. The PARS project is funded primarily by the PFBC, via the US Fish & Wildlife Service's State Wildlife Grants Program. To find out more about the PFBC, please visit their website: [www.fish.state.pa.us](http://www.fish.state.pa.us).

The primary PFBC personnel connected to the PARS project are:

**Chris Urban, Chief of the Natural Diversity Section, Division of Environmental Services**

Chris oversees all nongame conservation, research, and management activities for species under PFBC's jurisdiction, which includes reptiles, amphibians, fish, and aquatic invertebrates. Chris is a passionate herpetologist at heart and is most at home in the field turning rocks, logs, and otherwise searching for critters.

**Kathy Gipe, Herpetologist and Nongame Biologist, Natural Diversity Section**

Kathy conducts most herp-related fieldwork for the Natural Diversity Section, as well as oversees the data management program and the linkages to the Natural Heritage database. Kathy is the state coordinator for the North American Amphibian Monitoring Program and was just appointed to serve on the steering committee for Northeast Partners in Amphibian Conservation.

**The Mid-Atlantic Center for Herpetology and Conservation (MACHAC)** is a nonprofit organization dedicated to the conservation and study of amphibians and reptiles through advocacy, education, and the execution of research by professional herpetologists and ecologists in the Mid-Atlantic and Northeastern United States. In addition to PARS, major MACHAC projects also include the study and recovery of state and federally-listed amphibians and reptiles, notably important initiatives centered on the Bog Turtle and Eastern Massasauga. To learn more about MACHAC, please visit their website: [www.machac.org](http://www.machac.org).

The primary MACHAC personnel connected to the PARS project are:

**Brandon Ruhe, MACHAC President**

Brandon has conducted numerous amphibian and reptile studies throughout North America, often focusing on threatened and endangered species and community assemblages. He works closely with non-profits, local land use planners, and state/federal agencies for amphibian and reptile conservation and outreach. Research and policy interests include biogeography, habitat restoration, detailed population studies, and land protection incentivisation.

**Jason Poston, MACHAC Web Developer**

Originally hailing from and herping in South Carolina, Jason moved to the Mid-Atlantic Region nearly a decade ago. An important part of the PARS and MACHAC team, Jason combines a passion for reptiles and amphibians with the skillset of a web developer and designer. Jason works hard to maintain the MACHAC website and PARS database; keeping it up-to-date and accurate. He also works on print and media design, and branding for MACHAC. If you have any questions about how to use the website or general herp ID, email Jason at jposton@machac.org.

**Marlin Corn, PARS Outreach Coordinator**

Marlin is the PARS state-wide coordinator for the volunteer relations of PARS. Responsibilities include the promotion of PARS through outreach presentations, and the recruitment and coordination of PARS volunteers. He is the PARS newsletter editor and currently involved in the development of PARS on-line resources and MACHAC's comprehensive herpetological database. Marlin is the primary point of contact for PARS volunteers. Please feel free to contact him anytime: mcorn@machac.org.
Website Development

Since PARS officially launched June 1, over 3,500 herpetological records have been submitted to the website. This is in addition to the 7500+ records that were transferred from the PA HERP website, which, as many of you know was created by Jason Poston, the webmaster and IT expert for the Mid-Atlantic Center for Herpetology and Conservation. PA Herp data submitters consisted of some of Pennsylvania's most enthusiastic herpers, many of which are now PARS volunteers. Obviously, Jason has done an outstanding job in his role of creating the PARS website, which makes it incredibly easy for volunteers to submit their records. PARS is about to make data submission even easier with a mobile phone app with help from MobileMapper.org. Participants will be able to submit their records instantly and directly from the field. Watch for this development, it may possibly already be in operation by the time you receive this newsletter.

Also stay tuned for more on-line resources on the PARS website: a volunteer manual, scientific key and field guide are among the resources currently being developed.

Regional Coordinators Wanted

The PARS project is looking for enthusiastic volunteers who would be interested in acting as regional coordinators. We are interested in people who have (besides a passion for herpetology) good organizational skills and enjoy working with other volunteers, to help coordinate survey efforts throughout the state. Territories will be based along county lines in many cases, but may include larger territories in less densely population regions of Pennsylvania. In addition to coordinating survey efforts, Regional Coordinators will also be encouraged to conduct volunteer workshops and/or informative presentations about the PARS project. While this is a volunteer position, reimbursement for travel expenses will be available. If you are interested in becoming a Regional Coordinator, please contact PARS Coordinator Marlin Corn: mcorn@machac.org.

Herp-Blitzes Coming

Group survey outings, or 'Herp-Blitzes', are being planned throughout the state. We can only give dates and general regions of the state in this newsletter; exact location and time will be given to registered participants closer to each survey date. Currently, the following regions have Herp-Blitzes scheduled:

Northeast Region — Sunday, September 29
Northwest Region — Saturday, October 12

More Herp-Blitzes will be scheduled by the next issue of this newsletter. If you are interested in participating in a Herp-blitz, contact Marlin Corn: mcorn@machac.org

PARS Presentations

Informative presentations about PARS and herpetology-related topics are currently scheduled at these venues:

- **Pocono Environmental Education Center, Monroe County**
  September 28, 2:00 p.m.: ‘In Search of Pennsylvania's Imperiled Herpetofauna’, followed by a volunteer herp survey on the PEEC preserve.

- **Crooked Creek Environmental Learning Center, Armstrong County**
  October 13, 2:00 p.m. ~ ‘In Search of Pennsylvania's Imperiled Herpetofauna’

- **Silver Lake Nature Center, Bucks County**
  October 22, 5:30 p.m. ~ Pennsylvania Master Naturalist Program, Herpetology Session

Access to Private Lands Sought

A lot of Pennsylvania's herp habitat is on private land. One of the big needs for PARS is access to tracts of private property, as the only way to determine the distribution of many species in certain regions. If you are a property owner, or know one, who would allow a survey to be conducted, please let us know.

We Need Time Sheets

Volunteer time sheets are the measure of volunteer effort for PARS, and so are critical in maintaining its funding requirements. We ask that volunteers please be sure to submit monthly time sheets during the first week of each new month. By filling out the ‘Search Time’ field for each day surveying, the time sheets are automatically filled out for you—you only need to add an electronic signature and click the ‘submit’ button. Thank you in advance for submitting them.
Observations from the Field

Records are pouring in from the more than 500 current volunteers to the PARS project, and a number of new county records have already been ascertained. Unsurprisingly, common species, such as Green Frogs and Eastern Gartersnakes make up the bulk of these records (the PARS project still considers this important and valuable data). A very high number of Eastern Rat Snake records have been submitted, illustrating just how surprisingly widespread this species is.

On the flip side of the coin, shockingly low numbers of certain species have been received, including those of Ribbonsnakes and Northern Leopard Frogs. These species were already known to be declining from historic levels in our state, but the apparent lack of observations suggest that these declines may be more widespread than previously thought, or that many records submitted in previous atlas efforts may be questionable. To avoid identification issues, PARS relies on the submission of photo vouchers to verify species observations.

Highlights of observations made in June and July of 2013:

- Sixty-four Blue-spotted Salamanders were documented at a known site in north-central Pennsylvania by the Mid-Atlantic Center for Herpetology and Conservation last month. This species (first discovered in Pennsylvania by Michael Klemmens, Brandon Ruhe, Damon Oscarson and Linda Ordiway in 2001) remains one of the rarest herps in the commonwealth; but these numbers suggest that it is stable in at least one of the state’s few known sites.

- Giant salamanders: two Hellbender sites were found in July; one in Warren County, and one in Lycoming County. Three Mudpuppy observations were made from Warren County; an adult, a juvenile, and an active egg mass.

- Eastern Cricket Frogs were found at a new location in Luzerne County and reconfirmed at known locations in Bucks County and Luzerne County.

- Two Southern Leopard Frog (a state-endangered species) records were received for Philadelphia County—the first records for this species in this county by PARS volunteers.

- A Mountain Chorus Frog was confirmed with a voucher recording in Fayette County.

- Records for Eastern Spadefoot Toads came in from Berks, Bucks and Centre Counties.

- A Coal Skink was found in Venango County; the first PARS record for this species in Venango (though we hope to receive many more).

- A Wormsnake record was received for York County.

- Twelve records were received for Eastern Hog-nosed Snakes from six different counties.

- Eighteen records for Smooth Greensnakes were received from six different counties.

- Eight records for Queensnakes were received from seven different counties.

- Twenty-one records from five counties were received for Shorthead Garter Snakes.

- Records for Ribbonsnakes came in from two different counties.

- A single record for a Mountain Earthsnake from Potter County was received.

A New Species for Pennsylvania!

The Mid-Atlantic Center for Herpetology has analyzed recent recordings of Gray Treefrogs, and has determined that some recordings from western Pennsylvania are in fact of Cope’s Gray Treefrog, *Hyla chrysoscelis*. Plans are being made for DNA analysis to confirm this, a new species for the state of Pennsylvania!

Breaking News for August....

A Western Chorus Frog (*Pseudacris triseriata*) observation was confirmed from western Pennsylvania — the first documentation of this species in the commonwealth since 2005!
Observations from the Field

Summary of records received for June and July 2013:
Below are the numbers of species observation sites of species observations made and posted to the PARS website since it launched on June 1, 2013.

Salamanders

- Eastern Hellbender—2
- Common Mudpuppy—3
- Blue-spotted Salamander—1
- Spotted Salamander—16
- Marbled Salamander—3
- Red-spotted Newt—59
- Northern Dusky Salamander—41
- Seal Salamander—2
- Allegheny Mt. Dusky Salamander—63
- Northern Two-lined Salamander—26
- Long-tailed Salamander—29
- Northern Spring Salamander—4
- Eastern Red-backed Salamander—41
- Northern Slimy Salamander—41
- Northern Ravine Salamander—1
- Wehrle’s Salamander—9
- Northern Red Salamander—8

Frogs

- Eastern Spadefoot—3
- Eastern American Toad—179
- Fowler’s Toad—51
- Eastern Cricket Frog—6
- Gray Treefrog—371
- Cope’s Gray Treefrog—70
- Gray Treefrog (species undetermined)—2
- Mountain Chorus Frog—1
- Spring Peeper—34
- American Bullfrog—93
- Green Frog—161
- Pickerel Frog—54
- Southern Leopard Frog—2
- Wood Frog—26

Snakes

- Eastern Wormsnake—1
- Northern Black Racer—18
- Northern Ring-necked Snake—69
- Eastern Ratsnake—88
- Eastern Hog-nosed Snake—10
- Eastern Milksnake—38
- Northern Watersnake—97
- Smooth Greensnake—13
- Queensnake—7
- Northern Brownsnake—36
- Northern Red-bellied Snake—39
- Shorthead Gartersnake—21
- Eastern Ribbonsnake—1
- Northern Ribbonsnake—1
- Eastern Gartersnake—252
- Mountain Earthsnake—3
- Northern Copperhead—20
- Timber Rattlesnake—61

Lizards

- Eastern Fence Lizard—2
- Northern Coal Skink—1
- Common Five-lined Skink—16

Turtles

- Snapping Turtle—96
- Eastern Musk Turtle—17
- Midland Painted Turtle—14
- Eastern Painted Turtle—41
- Spotted Turtle—14
- Wood Turtle—28
- Bog Turtle—15
- Northern Map Turtle—9
- Red-eared Slider*—20
- Northern Red-bellied Cooter—17
- Eastern Box Turtle—109
- Eastern Spiny Softshell—25

*Non-Native Species

No observations of Northern Leopard Frogs were received for June and July of 2013; perplexing, as this species was once common in certain parts of Pennsylvania.

Weirdest of the Weird
Some Recent Observations of Herps Which Do Not Belong in Pennsylvania

A Kenyan Sand Boa was trampled to death by a horse in Lawrence County. A brilliantly-colored Western Painted Turtle was photographed in central Bucks County. A DOR Cornsnake was found in south-central Lancaster County.
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.

DECON!

PARS volunteers are encouraged to decontaminate their field equipment before and after entering sensitive habitats such as wetlands or areas that may harbor snake dens. There are some nasty pathogens around which can have devastating effects of our herpetofauna. Good decontamination practices will help prevent the spread of these diseases*. All equipment which comes in contact with water or the ground should be treated (boot soles, hip-waders, nets, snake hooks, walking sticks, etc.).

We are currently recommending scrubbing down with a 2% chlorohexadine solution. A second choice would be a 2% bleach solution*, although this is not as effective on certain pathogens, and bleach can deteriorate equipment.

You cannot be overly-cautious! Decontaminate immediately before and after each survey. Equipment should be soaked, or otherwise in contact with the solution for at least ten minutes (1-2 minutes is adequate when using chlorohexadine). Dirty equipment should be thoroughly scrubbed with solution. Make sure all surfaces come in contact with the solution. After treatment, rinse with clean water.

Always remove boots and waders, etc. before treating to avoid skin contact.

Avoid using felt-soled waders and boots; felt has a much greater potential for retaining pathogens.

*Always carefully follow instructions on the label of any decontamination product.

For more information on this issue, try these links:

http://fwf.ag.utk.edu/mgray/Publications/DAO84_89_94.pdf
http://ccadc.us/docs/DeconForProfessionals.pdf
http://www.dnr.state.md.us/streams/pdfs/2012MBSSTrainingDecon.pdf
http://www.mendeley.com/catalog/efficacy-select-disinfectants-inactivating-ranavirus/

….and Etiquette
Most Significant Finds

*Volunteers who have documented rare and uncommon species during June & July of 2013*

Ken Anderson - Hellbender, Mudpuppies, Northern Spring Salamanders, Northern Coal Skin, Northern Ribbonsnake

Kelly Balcarczyk - Northern Ravine Salamander, Seal Salamander, Mountain Chorus Frog, Queensnake, Cope’s Gray Tree Frog

Jacob Cramer - Wehrle’s Salamanders, Queensnake

Kyle Loucks - Eastern Spadefoot, Queensnake, Mountain Earthsnake, Eastern Cricket Frogs

Matthew Middleton - Wehrle’s Salamander

Kristi Sullivan - Wehrle’s Salamander

Ed Patterson - Wehrle’s Salamander

Richard Westlake - Wehrle’s Salamander

Jeff Chiyka - Eastern Wormsnake, Queensnake

Michael Hoffman - Eastern Hog-nosed Snakes

David McNaughton - Eastern Hog-nosed Snake, Spotted Turtle, Wood Turtle

Steven Staedtler - Eastern Hog-nosed Snake, Northern Red-bellied Cooter, Southern Leopard Frog

Bob Ferguson - Eastern Hog-nosed Snakes, Northern Red-bellied Cooter, Eastern Cricket Frogs

Patrick Patton - Eastern Hog-nosed Snake

Don Bratz - Eastern Hog-nosed Snake

Brandon Hunsberger - Wood Turtle, Smooth Greensnake

Dave Hughes - Eastern Hog-nosed Snake

Jamie Thomas - Queensnake

Adam Mattel - Queensnake

Scott Martin - Bog Turtles

Brian Hardiman - Common Ribbonsnakes

James Drasher - Bog Turtle

David Fitzpatrick - Southern Leopard Frog

The 100 Club

PARS members who have submitted over 100 records during the previous month, July of 2013

Brandon Hunsberger ----------- 116 Records

Kenneth Anderson ----------- 103 Records

The Fantastive Five

PARS members who have logged the most records since the launch of the PARS project on June 1, 2013 through July 31, 2013:

Ken Anderson ------------------- 320 Records

Brandon Hunsberger ------------ 226 Records

Kyle Loucks ------------------- 125 Records

Scott Martin ------------------- 112 Records

Ed Patterson ------------------- 101 Records

A Word of Thanks

PARS would like to offer a sincere thanks to all of the folks who offered their data that was recorded prior to the advent of the PARS project. Certain individuals contributed particularly large numbers of records, and deserve recognition:

Bob Ferguson ------------- 2,995 Records

Kyle Loucks ------------- 2,127 Records

Stephen Staedtler ------ 669 Records

Jason Poston ------------- 567 Records

Doug Warner ------------- 502 Records
Meet the Volunteers

Kyle Loucks

“My name is Kyle Loucks, from the southeast corner of the state, in Bensalem, Bucks County. I have worked for PECO/Exelon, a large power company, for 27 years. In my free time, besides herping, I coach softball, basketball, and two soccer teams. I also serve on the board of directors for a Philadelphia area children’s charity called ‘Cradles to Crayons’.

Herping for the better part of 40 years, I am past president of the Northeast Chapter of the North American Field Herpers Association, whose purpose is education, outreach and conservation. I serve on the verification committee for the current Maryland Herp Atlas Project, which is wrapping up its fourth year with one more year to go. I am also a longtime volunteer for the North American Amphibian Monitor Project, having routes in three different states. Spending time doing volunteer education is one of my favorite privileges and I have also have been able to instruct adults in the current Pennsylvania Master Naturalist Program.

Being a herping-generalist, it is hard to select a favorite Pennsylvania reptile or amphibian. However, perhaps one of my favorite animals to find is the Smooth Greensnake. Something about flipping a rock and seeing that bright green snake always provides a rush of excitement. Mountain Earth Snakes are a close second with Bog Turtles right behind.

I would like to encourage everyone to promote the conservation of Pennsylvania’s herps. Volunteering is one way to accomplish this outreach. Do reptile talks, volunteer at a nature center, be part of a bioblitz or local clean-up. It’s time well spent, and in the long run our reptiles and amphibians will benefit immensely from your support. And get your records into the PARS database! The PARS project is important because the results will be a tool available for the development of long-term conservation plans. Additionally, as critical environmental indicators, trends in populations may also foretell larger issues regarding the state’s ecological health.”

Historical Pennsylvania Herpetologists

Those Who Paved the Way......

Thomas Say

One of the very first prominent herpetologists connected to Pennsylvania was Thomas Say. Born in Philadelphia on June 27, 1787, Thomas Say was the great-grandson of William Bartram, and was one of the first American Naturalists to publish on amphibians and reptiles. Not only a respected herpetologist in his day, he was also an entomologist, malacologist, carcinologist and taxonomist. He is widely regarded and the father of descriptive entomology in the United States. Say helped found the Academy of Natural Sciences of Philadelphia in 1812. He travelled throughout much of the then-unsettled regions of North America with other important scientists, with whom he provided the first descriptions of many North American animals, including seven snake species. He died of suspected typhoid fever at the age of 47. Thomas Say has been honored by other naturalists in having several taxa named after him, including the Bullsnake, Pituophis catenifer sayi (Shlegel, 1837).
Species Spotlight

Marbled Salamander
Ambystoma opacum

The venter of the Marbled Salamander is jet-black. This species is sexually dimorphhic; males have bright white markings while those of females are grayish in hue. Usually encountered during the breeding season, males have a swollen vent, visible here. Photo: Marlin Corn

Like other Ambystomids, Marbled Salamanders are a robust species with distinctively large heads. Photo: Brandon Ruhe

Habitat: Mature woodlands with seasonally flooding aquatic habitats. Like most Ambystomids, they remain in underground tunnels through most of the year, but emerge to breed in late summer/early fall. When above ground they will hide beneath logs, bark, stones and other cover objects during the daylight hours.

Timing of Search: Adults begin moving to breeding sites in late summer, and females deposit their eggs and guard them beneath the leaf litter in currently dry basins that will soon flood from autumn rains. It is often easier to detect this species by checking pools for larvae in late-winter and spring.

Larvae: Can be distinguished from other Ambystomid larvae by the series of bold, light spots down the sides of the body and tail. Photo: John Styner

Metamorphs: May superficially resemble Slimy Salamanders. Photo: John Styner
NAME THAT HERP:
Show Me Some Skin!

See if you can guess the herp species these close-ups belong to.
~ Answers on page 12
KIRTLAND’S SNAKE
A.K.A. *Clonophis kirtlandii*
THIS REPTILE HAS NOT BEEN SEEN IN PENNSYLVANIA SINCE 1965
LAST SEEN IN THE SOUTHWESTERN REGION
CURRENT WHEREABOUTS IN PENNSYLVANIA UNKNOWN

Reward: Accolades of the herping community
Contact & Resource Information

Interim Regional Coordinators (please take our spots!):

Western Pennsylvania: Jason Poston - jposton@machac.org
Central Pennsylvania: Brandon Ruhe - bruhe@machac.org
Eastern Pennsylvania: Marlin Corn - mcorn@machac.org

Contact:

The Mid-Atlantic Center for Herpetology and Conservation
PO Box 620, Oley, PA 19547
www.machac.org
email - info@machac.org

Web Sites:

Pennsylvania Fish & Boat Commission: www.fish.state.pa.us.
The Mid-Atlantic Center for Herpetology and Conservation: www.machac.org
Society for the Study of Amphibians and Reptiles: www.ssarherps.org
Northeastern Partners in Amphibian and Reptile Conservation: www.northeasparc.org

Answers to ‘Name That Herp’ quiz on page 10:

A. Eastern Spadefoot
B. Northern Watersnake
C. Common Five-lined Skink
D. Green Frog
E. Jefferson Salamander
F. Spiny Softshell