We are kicking off our quarterly newsletters again after a short hiatus this spring and summer. The previous PARS coordinator, Marlin Corn, has retired so we’d like to send him off with a fond farewell and thanks for doing a good job for the first few years of the project. Each year, the PARS activity season gets a jump start with our annual meeting. This year, the meeting was held at the PA Fish & Boat Commission’s Centre Region Office, the wonderful new facility the commission created from a former warehouse in Bellefonte, Pennsylvania. The meeting was well-attended and the slate of speakers delivered interesting and entertaining talks. The Mid-Atlantic Center of Herpetology and Conservation would like to thank the participants, the speakers, and the PFBC for making the meeting yet another success. Aside from the wonderful presentations, some highlights from the meeting included a bonfire social at the very accommodating GodSpeed Hostel in Port Matilda (http://www.godspeedhostel.com), which sits on 20 acres along the Bald Eagle Creek, and watching several participants get a lifer species (Valley and Ridge Salamander) in frigid temperatures. Despite the cold, intrepid herpers Kyle Loucks, Christina Obrecht, Ken Anderson, Mark Lethaby, Brandon Hunsberger, Jon Adamski, and Rich Rosevear managed to gather observations of 4 species after the meeting (Spotted Salamander, Valley and Ridge Salamander, Spring Peeper, and even a Northern Ring-necked Snake!). Check out Page 5-8 for some images of the PARS meeting and festivities. Frigid temperatures were the theme of this spring as unseasonably cool weather depressed herp observations across Pennsylvania after an incredibly warm February brought vernal pool breeders out across the southeastern part of the state. Spring herping seemed to be seemed to be off to an early field start, but it did not last. April even saw record setting snow throughout portions of the Commonwealth! As the weather warmed the army of PARS herpers, known by some as PARSers, mobilized. Record submissions neared normal levels for May and then the rains started in June and seemingly did not stop. Record rainfall fell throughout the summer and early fall bringing historic and catastrophic flooding to large portions of Pennsylvania. These heavy and unprecedented rains drove many herpers in-doors, but increased opportunities for road-cruising amphibians. For example, the elusive Eastern Spadefoot was recorded in 21 blocks during the summer of 2018. This total is almost twice as many of all the Eastern Spadefoot blocks recorded from 2013 through 2017! 

As always, we would like to emphasize the need to meet our minimum project objectives of 10 species per block and 25 species per quadrangle. Please refer to block and quadrangle maps on the PARS website for guidance. Happy herping and, as always, we would like to thank all of the wonderful volunteers that make this project a success.

Brandon Ruhe and Jason Poston
Pennsylvania Amphibian and Reptile Survey (PARS) Statewide Coordinators
Project Updates

You may have noticed some changes to the PARS site that were made this summer. The below is a summary of PARS website changes, and we hope you agree, they make the experience a bit easier for participants.

Permits
State Forest, State Gamelands, and State Park permits are now available to registered PARS volunteers on the PARS homepage! The PA DCNR and PA Game Commission graciously allowed volunteers to be permitted to survey these aforementioned lands. In order to download the permits, you must agree to certain terms and conditions, and agree to abide by the conditions of each permit. Pay careful attention to these conditions as they vary from permit to permit. Failure to do so can result in the revocation of these permits and represents both you and the PARS project poorly. All observations must be reported on the PARS website. Failure to do so will also result in immediate revocation of permits. And as always, all persons over the age of 16 are required to have a valid fishing license issued by the PA Fish and Boat Commission. Fishing licenses can be bought in person at one of 900 issuing locations or online at https://www.fishandboat.com/Fish/FishingLicense/Pages/BuyAFishingLicense.aspx. Please print and carry permits with you in the field. These permits are important and we wanted them to protect our volunteers legally while conducting herping activities that may not be allowed by the general public on certain state lands.

Coordinator’s Portal
We recently launched a Coordinator’s Portal for county and regional coordinators, accessible directly from the top of the PARS homepage. One of the main things we would like to capture with the portal is some basic information about events. There are two event forms. One is to add upcoming events that will also send us an email to add the event to the PARS calendar. The other form is used to add past events or private events. After you attend events we ask that you go to “my events” and click edit, here you can add additional information about the event (e.g. “Number of Participants”). Additionally, there are a number of downloadable resources on the site, including waivers, timesheets, sign-in sheets, flyers, regional volunteer lists, and other informational documents. Features are often updated and changed, so please check into the portal regularly. If you have any thoughts or suggestions regarding the portal, please let us know.

Verification Portal
The verification portal (for verification committee members) is now accessible on the top of the PARS homepage, in addition to the direct address.

Timber Rattlesnake Assessment Project (TRAP) Portal
The Mid-Atlantic Center for Herpetology and Conservation/PARS Project partnered with the Pennsylvania Fish & Boat Commission to create a data entry portal for the TRAP project. This portal streamlines the process for data submission (no more emailing forms and mileage/time sheets!). The data ties into the larger PARS database and, like PARS records, site-specific information is only visible to the submitter and the PFBC/MACHAC project leads. If interested in getting involved in the TRAP project, contact Chris Urban (curban@pa.gov).

Timber Rattlesnake Monitoring Project (TRAMP) Portal
The Mid-Atlantic Center for Herpetology and Conservation/PARS Project partnered with East Stroudsburg University to create a data entry portal for the TRAMP project. This portal streamlines the process for data submission (no more emailing forms and mileage/time sheets!). The data ties into the larger PARS database and, like PARS records, site-specific information is only visible to the submitter and ESU/PFBC/MACHAC project leads. If interested in getting involved in the TRAMP project, contact Tom LaDuke (tcladuke@esu.edu).
MARK YOUR CALENDAR!

PARS Presentations & Volunteer Workshops:

13th Susquehanna River Symposium
Oct. 27, 2018 8:00 a.m. - 5:00 p.m.
Bucknell University Center for Sustainability & the Environment
835 Fraternity Rd, Lewisburg, PA 17837
For more info click here, or contact Kyle Fawcett: snyder@paherpsurvey.org

Search for Salamanders Hike with Billy Brown
Nov. 4, 2018 10:00 a.m. - 12:00 p.m.
Bucknell University Center for Sustainability & the Environment
835 Fraternity Rd, Lewisburg, PA 17837
For more info https://www.fow.org/event/search-for-salamanders-bb1/, or contact Billy Brown: philadelphia@paherpsurvey.org

Amphibians and Reptiles of Lebanon County
Feb. 27, 2019 8:30 p.m. - 9:30 p.m.
Chapel of the Lebanon Valley Home, 550 East Main Street, Annville, PA
For more info click here, or contact David McNaughton: dauphin@paherpsurvey.org

More to be scheduled – stay tuned for details!
Find current events at http://paherpsurvey.org/news/events
or on Facebook at http://facebook.com/paherpsurvey
2018 Annual Meeting

A surprised Sue Muller receives a volunteer award

Andy Weber receives a volunteer award

Billy Brown receives a volunteer Award

Brandon Hunsberger receives a volunteer award

Forgotten Friends mobile

It was great to see another generation of herpers on the rise. Pictured is the Laubach Family

Kyle Loucks, Joann Corn and the wonderful lunch spread

DEVELOPED AND MAINTAINED WITH FISH FUNDS AND BOATING FUNDS
Kyle Fawcett receives a volunteer of the year award.

Volunteer and MACHAC Board Member Dave McNaughton receives a volunteer award.

Mark Lethaby receives a volunteer award.

Kathryn Coates of Indiana University of Pennsylvania presents her research on Valley and Ridge Salamanders.

Nat Nazdrowicz receives a volunteer award.

MACHAC PARS coordinator Marlin Corn updating the group on 2017 field results.

MACHAC president Brandon Ruhe updating the group on MACHAC projects.

Chris Urban of the PFBC presents an update to PFBC projects.
Many thanks to Joann Corn for all of her wonderful help.

Scott Martin, Stacia-Fe Gillen, and Kyle Fawcett helping at the registration station.

PARS swag and Map Turtle journal papers from author Tom Puto.

Volunteer and MACHAC board member Tom Pluto receives a volunteer award.

Tom Pluto, a.k.a. Jacques Pluteau, gave an interesting and very entertaining presentation on his Map Turtle research.

Tom LaDuke of East Stroudsburg University presenting on Timber Rattlesnake Monitoring Program.

Volunteer Kyle Fawcett presenting on map downloads and block busting.

The meeting was well-attended and fun was had by all.
Some PARS participants at the post-meeting social

Chris Urban, Brandon Ruhe, and Scott Angus talking herps

Brandon Ruhe with the Pluto Brothers, Tom and Gary

Nate Nazdrowicz and Jason Poston having some fun at the social

Good times had by all at PARS social bonfire. Pictured are Tom LaDuke, Jon Adamski, Rich Rosevear, and Scott Rando
“Mount Davis at 3,213 ft. is the highest point in Pennsylvania. It is named for John Nelson Davis, an early settler, American Civil War veteran, surveyor, and naturalist known for his studies of the mountain’s flora and fauna.”
- Wikipedia citation

It was a very warm fall day when I ‘scaled’ Mount Davis in Somerset County with other members of a Pennsylvania Amphibian and Reptile Survey team. We were visiting the area to document several survey sites lacking amphibian and reptile records. ‘Scaling’ Mount Davis is somewhat of a misnomer because it’s very easy to drive to the summit, which is what we did on a final stop after herping at other nearby sites over the course of the day.

Unless you climb to the top of a fire tower near the summit it is not possible to see much from Mount Davis itself, since the peak does not rise over the surrounding landscape all that much.

Baughman Rocks, noted for its patterns of unusual stone formed by periglacial action is an interesting geologic feature that we made a brief stop at before heading out to do some searching. Periglacial formations occur in areas where seasonal freezing and thawing occur. At Baughman’s Rocks periglacial action has resulting in rock formations with deep crevices.

Baughman’s Rocks

Because this was our last stop of the day and an approaching tropical depression was headed to the area we did not spend much time on the mountain. However, we did manage to document some records for the atlas project.

Snakes found included Milk Snakes and Northern Ring-necked Snakes. Salamanders included Allegheny Mountain Duskys, Eastern Redbacks and Northern Slimys. We also heard the distant call of Spring Peepers.
We did not find many species, but it is important to survey as much of the state as possible to get an accurate assessment of the status of amphibian and reptile populations. Our records will be added to those of others who have surveyed the area before, adding to a more complete picture of the amphibian and reptile populations. As we left the mountain we heard the faint call of Spring Peepers in the nearby woods, a harbinger of Springs yet to come. Their calls this time of year are known as the ‘Fall Echo’. For many herpers this time of year will mark the end of the herping season; however, some will continue searching through the winter months, especially if a warm spell occurs when springs and seeps will have some activity to observe.

All of us will look forward to the new year when the first signs and calls of Spring will reawaken us, and we will return to the swamps, forests and streams we enjoy.

“Each new year is a surprise to us....How happens it that the associations it awakens are always pleasing, never saddening; reminiscences of our sanest hours? The voice of nature is always encouraging.”
- Henry David Thoreau

Ed Patterson
Calling all writers!

Have an interesting idea for a newsletter article? Contact us at info@machac.org with the subject line “newsletter”.

Articles can span just about any topic related to Pennsylvania herpetology, from history to natural history, and from funny field anecdotes to serious scientific pieces.
Summary of vouched records received from March through September 2017:

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 Red-backed Salamander: 393
- Red-spotted Newt: 235
- Allegheny Mountain Dusky: 207
- Northern Dusky Salamander: 204
- Northern Slimy Salamander: 194
- Spotted Salamander: 191
- Northern Two-lined Salamander: 188
- Northern Red Salamander: 107
- Northern Spring Salamander: 94
- Eastern Long-tailed Salamander: 80
- Four-toed Salamander: 46
- Jefferson Salamander: 36
- Wehrle's Salamander: 35
- Seal Salamander: 24
- Valley And Ridge Salamander: 20
- Marbled Salamander: 13
- Common Mudpuppy: 11
- Northern Ravine Salamander: 7
- Eastern Hellbender: 6
- Blue-spotted Salamander: 3

**Frogs**
- American Toad: 485
- Green Frog: 395
- Spring Peeper: 377
- Wood Frog: 235
- Bullfrog: 205
- Pickerel Frog: 158
- Gray Treefrog: 101
- Unknown Gray Treefrog: 70
- Northern Leopard Frog: 22
- Eastern Spadefoot: 21
- Fowler’s Toad: 20
- Cope’s Gray Treefrog: 14
- Mountain Chorus Frog: 5
- Upland Chorus Frog: 2
- Northern Cricket Frog: 1

**Snakes**
- Eastern Gartersnake: 321
- Eastern Ratsnake: 232
- Northern Ring-necked Snake: 200
- Northern Watersnake: 157
- Eastern Milksnake: 117
- Timber Rattlesnake: 113
- Northern Red-bellied Snake: 61
- Northern Brownsnake: 52
- Northern Black Racer: 38
- Copperhead: 28
- Smooth Greensnake: 26
- Queensnake: 18
- Eastern Hog-nosed Snake: 15
- Shorthead Gartersnake: 10
- Ribbonsnake: 6
- Eastern Wormsnake: 5
- Mountain Earthsnake: 4
- Smooth Earthsnake: 2
- Northern Rough Greensnake: 1
- Massasauga: 1

**Turtles**
- Snapping Turtle: 203
- Painted Turtle ssp.: 200
- Box Turtle: 189
- Wood Turtle: 141
- Red-eared Slider: 41*
- Northern Map Turtle: 35
- Northern Red-bellied Cooter: 27
- Eastern Spiny Softshell: 26
- Spotted Turtle: 22
- Common Musk Turtle: 16

*introduced species

**Lizards**
- Common Five-lined Skink: 37
- Fence Lizard: 12
- Northern Coal Skink: 11
- Broad-headed Skink: 3
- Mediterranean Gecko: 2*
- Italian Wall Lizard: 1*
Fall & Winter Herping
Common Mudpuppy

By Brandon Ruhe
Photo By Kenneth Anderson II & Chris Bortz

While the Common Mudpuppy was the focus of last winter’s species spotlight, we figured we would expand a bit on the species as it is currently the subject of a distribution study by The Mid-Atlantic Center for Herpetology and Conservation.

The Common Mudpuppy (*Necturus maculosus*) is a large salamander that grows to over 19 inches (>48 cm) in length. Mudpuppies are paedomorphic, meaning that individuals become reproductively mature while maintaining what are typically larval salamander characteristics (such as gills) and do not undergo metamorphosis. Even the largest adult Common Mudpuppies maintain feathery gills and tall, paddle-like tails. Common Mudpuppies are harmless, though they do occasionally bark like dogs when captured and will rarely bite. While it may cause a minor amount of pain, the bite is harmless. Many inaccurate stories exist about the Common Mudpuppy (largely held by anglers), such as the salamander having a venomous bite or stinger. These untrue beliefs often lead to Common Mudpuppies being indiscriminately killed when caught on fishing lines or in minnow traps or nets. It was formerly a common sight to see piles of dead Common Mudpuppies on fishing piers along the Great Lakes. Despite its name, the species is considered at-risk or imperiled in 13 U.S. states and a Canadian province, and has potentially been extirpated from South Dakota. Major threats to the species include pollution of bodies of water, poaching for the illegal pet trade, collection for the legal pet trade, pathogens, and intentional killing by misinformed anglers.

The Common Mudpuppy distribution is centered on the Great Lakes and Mississippi River drainages of North America. Disjunct populations exist in certain areas, most notably in Atlantic slope of New England and New York. Historically thought to be introduced unintentionally by canal systems or intentionally by human introductions, the majority of these disjunct populations are currently believed to be naturally occurring, with the exception of Maine. In Pennsylvania, the Common Mudpuppy is found in the Ohio River and Lake Erie drainages. Habitats are permanent bodies of water, including rivers, streams, lakes (natural and man-made), and ponds. The species is generally nocturnal. Diurnal microhabitats include places that the salamander can hide,
including rocks, logs, and aquatic vegetation beds. Common Mudpuppies are voracious predators and will eat just about anything that can fit into the mouth including fish, crayfish, amphibians, worms, and other invertebrates. Adults move into shallower waters during the autumn months when mating commences. Adult females attach eggs to the bottom of stones or other structures the following spring. Unlike most amphibians, Common Mudpuppies are most active and most easily observed during the cooler months of the year and are regularly caught by anglers while ice fishing. This gives PARS herpers a great chance to do some fall and winter herping when most other species are inactive. The Common Mudpuppy is the only known host for the glochidia (parasitic larvae) of the globally-rare Salamander Mussel (*Simpsonaias ambigua*), which attach to the feathery mudpuppy gills.

The Mid-Atlantic Center for Herpetology and Conservation has partnered with the Pennsylvania Department of Conservation and Natural Resources, through its Wild Resource Conservation Program (WRCP) funding, and the Pennsylvania Fish and Boat Commission, through the Pennsylvania Amphibian and Reptile Survey (PARS), to study the distribution of the Common Mudpuppy in Pennsylvania. The salamander is considered a “Species of Greatest Conservation Need” in Pennsylvania. The Common Mudpuppy has been confirmed in seven new counties by MACHAC since the beginning of the PARS and WRCP projects and found in a number of previously unknown watersheds. MACHAC has been conducting surveys and non-lethal trapping studies for Mudpuppies throughout Pennsylvania. PARS volunteers are encouraged to help these efforts. Please reach out to us if interested.

PARS participants are also encouraged to spread the word to anglers, as this group has a great opportunity to help us figure out the distribution and status of this species. If caught on a fishing line, you can try to remove the hook from salamander’s mouth with pliers. Deep hooks however, like with fish, will kill the salamander if you try to yank the hook out. The best bet is to cut the line as far down towards the hook as possible. Common Mudpuppies need to be in water to breathe, so please get them back into the water as quickly as possible after you take your picture. It is important to note that unintentionally catching Common Mudpuppies while fishing is not against the law, but intentionally killing them most likely is. Please help by simply taking a picture of any specimens encountered and emailing the picture, date, time, and location of the observation to info@machac.org.
Significant Finds
Volunteers who have documented rare and uncommon species during March-September 2018.

Cynthia Edwards: Broad-headed Skink
Kyle Loucks: Bog Turtle
Mark Lethaby: Common Mudpuppy, Eastern Hellbender
Brandon Hunsberger: Common Mudpuppy, Eastern Hellbender
Gary Plato: Common Mudpuppy, Green Salamander, Smooth Greensnake
Nate Nazdrowicz: Cope’s Gray Treefrog, Fowler’s Toad, Queensnake
Andy Weber: Fowler’s Toad, Wood Turtle
Kyle Fawcett: Northern Leopard Frog, Timber Rattlesnake
Tom Pluto: Eastern Hog-nosed Snake, Northern Map Turtle, Wood Turtle
Walter Stratton: Northern Ravine Salamander
Travis Russell: Upland Chorus Frog, Timber Rattlesnake
Scott Martin: Bog Turtle, Mountain Chorus Frog
Gerard Madden: Spotted Turtle
Michael Ferretti: Spotted Turtle
Stephen Staedtler: Marbled Salamander, Northern Red-bellied Cooter
Sue Muller: Spotted Turtle
Stacia-Fe Gillen: Spotted Turtle, Timber Rattlesnake, Wood Turtle

Block Masters
PARS volunteers who currently* hold the top five slots for the most quad-blocks surveyed since the project launch:
*October 10, 2018 snapshot

Kyle Fawcett: 586 blocks
Tom Pluto: 432 blocks
Kyle Loucks: 386 blocks
Nate Nazdrowicz: 385 blocks
Scott Martin: 341 blocks

The Fantastic Five
PARS volunteers who have submitted the most records since the launch of the PARS project on June 1, 2013 through September 30, 2018:

Ed Patterson: 4,934 Records
Kyle Fawcett: 4,801 Records
Brandon Hunsberger: 4,732 Records
Duane Stafford: 3,878 Records
Chris Bortz: 2,637 Records
I was born and raised in Pittsburgh. Aside from Eastern Gartersnakes, I really didn't see many herps there when I was a kid. Some of my fondest memories growing up are of catching salamanders and turtles on family outings. My dad used to paddle me around in a row boat so I could dip-net for painted turtles and the occasional spiny softshell. I'm certain that my affinity for herps came from these experiences.

I work for the National Park Service's Inventory and Monitoring Program. As such, I get to travel quite a bit and see some amazing places. I work mainly with aquatic resources like stream invertebrates, fish, and water quality. In Pennsylvania, I work in two large parks along the Delaware River and four smaller parks in the western half of the state.

I received Associate and Bachelor's Degrees from Penn State in Wildlife Technology and Wildlife and Fisheries Science, respectively. After college, I attended Tennessee Technological University for my Master's work where I did research on sampling methods and basking behavior of turtles in a small lake.

In 2003, I took a field biology course in which we traveled to Florida and surveyed turtles in a spring ecosystem mainly by snorkeling and hand-capturing. Needless to say, I was pretty much hooked on turtles at that point! This project continued and we began calling our group the North American Freshwater Turtle Research Group (NAFTRG). That ongoing project has since expanded to research in other states and in 2012 joined with the Turtle Survival Alliance (TSA). The group is now known as TSA-NAFTRG. I currently serve as Associate Researcher for this group and help lead surveys in Lebanon and Schuylkill Counties in PA.

I also volunteer as Field Projects Manager for the TurtleRoom. This group is dedicated to turtle conservation, education, and research. Among other things, they work with the Association of Zoos and Aquariums and cooperate with Species Survival Plans. I help mainly with their field research efforts but I look forward to getting more involved with captive care and breeding in the future.

One of my favorite things to do is to get out and explore nature with my wife, Jess and daughter, Laurel. We try to visit and camp in a different state park at least once per year and get out on daytrips fairly often as well. A fair number of my PARS records are actually of animals that Jess found. We are trying to raise Laurel to have an appreciation for herps, and of nature in general. Judging by the look of pure excitement on Laurel's face when we find a herp I'd say we are doing okay so far!

PARS is an extremely important effort with a great group of dedicated volunteers and I am very happy to be a part of it. It's nice to have a great repository for all of our herp records that also goes to increase our understanding of these amazing creatures!
A.K.A

The scientific names are your clues. Fill in the puzzle with the common name. Use the key at the bottom for help with determining the Latin (L.) and Greek (Gr.) root words.

Spoiler alert: The answers all have something in common!

Across
1. Plethodon glutinosus
8. Necturus maculosus maculosus
9. Ambystoma tigrinum tigrinum
11. Notophthalmus viridescens viridescens
12. Eurycea longicauda longicauda
14. Ambystoma jeffersonianum
18. Desmognathus fuscus fuscus
19. Plethodon hoffmani
20. Ambystoma opacum
22. Pseudotriton montanus montanus
23. Anides aeneus

Down
2. Desmognathus ochrophaeus
3. Gymnophilus porphyriticus porphyriticus
4. Plethodon wehrleii
5. Ambystoma maculatum
6. Plethodon cinereus
7. Plethodon electromorphus
10. Ambystoma laterale
13. Eurycea bilineata
15. Cryptobranchus alleganiensis alleganiensis
16. Desmognathus monticola
17. Hemidactylium scutatum
21. Pseudotriton ruber ruber

aeneus, (L.) bronze or coppery
allegonienses, (French) in the Allegheny
ambly, (Gr.) blunt
aneides, (Gr.) shapeless
bis, (L.) twice
branchia, (Gr.) gills
cauda, (L.) tail
cinereus, (L.) ash color
cola, (L.) inhabit
dactylium, (Gr.) medical term for fusion of digits, referring to reduced number of digits on the hind feet.
desma, (Gr.) band
desmos, (L.) band
electromorphus, refers to the electrophoretic differences in protein characteristics between this species and a similar species.
euryx, (Gr.) wide
fuscus, (L.) dusky, brown, dark
gluten, (L.) glue, sticky
gnathos, (Gr.) jaw
gyro, (Gr.) tadpole
hemi, (L.) half
hoffmani, named for Richard Hoffman who collected the 1st specimens.
jeffersonianum, named for Jefferson College, Washington County.
kryptos, (Gr.) hidden
lateralis, (L.) of the side
lineola, (L.) a line
longus, (L.) long
macula, (L.) spotted
maculatum, (L.) spotted
muns, (L.) mountain
montanus, (L.) belonging to a mountain
nekton, (Gr.) swimming
noto, (Gr.) mark
opacum, (L.) shaded, dark, obscure
ochro, (Gr.) pale yellow
odont, (L.) teeth
ophthalmus, (Gr.) eye
phaeo, (Gr.) dusky, dark
philas, (Gr.) loving
pleth, (Gr.) to be full
porphyratos, (Gr.) reddish brown or purple
pseudes, (Gr.) false
rube, (L.) to be red
scutatus, (L.) armed with a shield or shield-like plates.
stroma, (Gr.) mouth
tigrinus, (L.) alludes to a tiger-like coloration.
triton, (Gr.) newt
viridescens, (L.) slightly green
wehrleii, named for R. W. Wehrle, who collected the 1st specimens

Contact & Resource Information

Regional Coordinators:
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Southwestern Pennsylvania: Ed Patterson - sw@paherpsurvey.org
South-central Pennsylvania: Tom Pluto - sc@paherpsurvey.org
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Central Pennsylvania: Brandon Ruhe - bruhe@machac.org

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Continues on next page....
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Jason Poston, Webmaster and IT Expert, The Mid-Atlantic Center for Herpetology and Conservation
Chris Urban, Chief of the Natural Diversity Section, Division of Environmental Services, Pennsylvania Fish & Boat Commission
Kathy Gipe, Herpetologist and Nongame Biologist, Natural Diversity Section, Pennsylvania Fish & Boat Commission
MACHAC Contact: info@machac.org

Recommended Web Sites:
Pennsylvania Amphibian and Reptile Survey (PARS): www.paherpsurvey.org
The Mid-Atlantic Center for Herpetology and Conservation (MACHAC): www.machac.org
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