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LETTER FROM THE EDITOR

Letter from the Editor

As we begin a new year, we are reminded of the loss that our herpetological world suffered just two short years ago. However, his legacy will continue. The following is an essay that KHS member Grace Anne Johnson wanted to share:

The Mentor of a Lifetime:

My most influential character in my life would be a gentle, old man who gave me the experience of nature at its finest; this man gave me the kindness of a comforting heart and the skills of, not only, life but the skill I will use the rest of my biological career. Joseph T. Collins was a man of wisdom and pride and showed how life was supposed to be lived. He had similar traits as Morrie from the book, "Tuesdays With Morrie," in many ways: Joe was a teacher and a fighter, he expanded his knowledge so far to others, that it just about touched the nose of the person asking the question, and loved his followers with passion. These followers were guided down his path of humble-natured modesty. This man was given few material items as a child; this man gave more than he could receive; this man was the heart of the KHS and his memories live on. He was the biggest comparison to Morrie I have ever witnessed. His gentle soul can live on in the past and his legacy will live to be told.

Joe was distinct in his own way: he gave others a reason to keep going, whether it was a research paper or a simple task as grasping life like a handle bar. This life was a special one, for Joe made everyone want to become someone he was; especially myself. His legacy of snake bites, or tags, especially the venomous snakes will forever be told at the KHS annual auction. His love for nature was a blossoming flower for all the bees to harvest upon. He took life in his mangy hands and made it bloom into a proficient, gibbing, and grateful matter such as a polar bear creates the life stability for her cubs even when she is scared herself.

The way Joe told stories made you think you were in wonderland or engulfed within. This gave the audience a more-than-personal perspective on the wonders of the literature NOT written in this paper. Because he was a strong-willed man, he gave his life to a heart attack nearing the age of sixty five. His heart beat through his chest onto others' souls just before he passed. This love was given to his wife who witnessed this and to Larry Miller, his loving best friend. The life was taken by a heart failure when his body was not strong enough to carry his beer belly around St. Vincent island in the Florida panhandle each year. When new years' day arrived, celebrating was not on the agenda, for Joe had his life taken earlier that day. The night came and went to the hospital when the news of the pulsations have stopped and consumed his life like an infestation of cockroaches would take a hoarder's home. The tragedy obsessed my mind the moment my father told me.

The greatest memory of all was when Joe took me under his wing during an interview session for a small movie about a KHS census. He held me tight while the camera pointed at us and I smiled like there was not a problem in the world; I was there for pleasure. These bear hugs gave me a sense of direction in my life and a reference for the future generations on how they should live their lives. The life of his was magical and gave just as much as the Giving Tree was to the boy. He was the bark to my tree that is small but growing every day. My life has been forever changed because of his love and consideration.

I gave him my all and he to me; he was my pretend grandfather and mentor; the best of the best. He was the father figure when my father didn't know what to say. He was the reference if anything went wrong. He took my hand and showed me the way out of a sticky situation and I will love him forever. Joe, I am your biggest fan.

- Grace Ann Johnson

At the request of Suzanne Collins, I would like to present you with an old Irish poem. We miss you Joe...

"What moves through us is a silence, a quiet sadness, a longing for one more day, one more word, one more touch, we may not understand why you left this earth so soon, or why you left before we were ready to say good-bye, but little by little, we begin to remember not just that you died, but that you lived. And that your life gave us memories too beautiful to forget"

-Old Irish Poem

Curtis J. Schmidt
KHS Editor

KHS BUSINESS

KHS 2012 Spring Field Trip to Bourbon County State Lake

The KHS met at Bourbon State Fishing Lake in Bourbon County 27-29 April 2012. Counts took place around the lake and on the Blythe Ranch (2.5 miles south and 1 mile east of the Bourbon State Fishing Lake Dam). There were 399 individuals of 50 species discovered by the 108 participants. The following amphibians and reptiles were observed.

Amphibians

Frogs

American Toad.....	15
Blanchard's Cricket Frog	50+
Gray Treefrog complex	2
Spring Peeper.....	1
Boreal Chorus Frog	15
Western Narrow-mouthed Toad.....	4
Crawfish Frog	2
Plains Leopard Frog	6
American Bullfrog	16
Southern Leopard Frog	50+

Salamanders

Small-mouthed Salamander	3
Eastern Newt	1

Reptiles

Turtles

Snapping Turtle	2
Painted Turtle	1
Southern Map Turtle	1
False Map Turtle.....	2
River Cooter	1
Three-toed Box Turtle	16
Ornate Box Turtle	3
Pond Slider	24
Eastern Musk Turtle.....	1
Spiny Softshell.....	3

Lizards

Slender Glass Lizard	5
Eastern Collared Lizard	16
Common Five-lined Skink.....	12

Broad-headed Skink	3
Great Plains Skink	6
Little Brown Skink	4
Six-lined Racerunner	2

Snakes

North American Racer	3
Yellow-bellied Kingsnake	3
Western Milksnake	5
Speckled Kingsnake	4
Rough Greensnake	3
Great Plains Ratsnake.....	2
Western Ratsnake	11
Gophersnake	1
Flat-headed Snake	16
Copperhead.....	11
Timber Rattlesnake.....	5
Massasauga	2
Western Wormsnake	13
Ring-necked Snake	28
Plain-bellied Watersnake	2
Diamond-backed Watersnake	1
Common Watersnake	9
Graham's Crayfish Snake.....	2
Dekay's Brownsnake	3
Western Ribbonsnake	1
Common Gartersnake	7

Travis W. Taggart
Sternberg Museum of Natural History
Fort Hays State University
Hays, Kansas 67601

KHS 2012 Summer Field Trip to Meade County State Park

The KHS met in Meade County 20-22 July 2012. Counts took place throughout Meade County. There were 202 individuals of 29 species discovered by the 22 participants.

Amphibians

Frogs

Woodhouse's Toad	14
Blanchard's Cricket Frog	6
Plains Leopard Frog	2
American Bullfrog	3
Plains Spadefoot	11

Salamanders

Western Tiger Salamander	50+
--------------------------------	-----

Reptiles

Turtles

Snapping Turtle	6
Painted Turtle	2
Ornate Box Turtle	14
Pond Slider	11
Yellow Mud Turtle	3
Spiny Softshell.....	8

Lizards	Gophersnake	16
Eastern Collared Lizard	Long-nosed Snake	5
Common Lesser Earless Lizard	Prairie Rattlesnake	23
Texas Horned Lizard.....	Plains Hog-nosed Snake	2
Prairie Lizard	Eastern Hog-nosed Snake	1
Great Plains Skink.....	Plain-bellied Watersnake	1
Six-lined Racerunner	Plains Gartersnake	3
Snakes		
Glossy Snake		Travis W. Taggart
North American Racer		Sternberg Museum of Natural History
Coachwhip.....		Fort Hays State University
Speckled Kingsnake		Hays, Kansas 67601

KHS 2012 Fall Field Trip to Atchison County State Lake

The KHS met in Atchison County 7-9 September 2012. Counts took place around Atchison County State Lake and on private property 0.6 miles north and 0.8 miles west of the lake Dam. There were 202 individuals of 29 species discovered by the 22 participants.

Amphibians	Snakes	
Frogs	North American Racer	3
Woodhouse's Toad	Western Milksnake	5
Blanchard's Cricket Frog	Western Ratsnake	9
Gray Treefrog complex	Copperhead.....	11
Western Narrow-mouthed Toad.....	Timber Rattlesnake.....	3
Plains Leopard Frog	Western Wormsnake	2
American Bullfrog	Ring-necked Snake	8
Reptiles	Common Watersnake	5
Turtles	Dekay's Brownsnake	9
Snapping Turtle	Common Gartersnake	5
Painted Turtle		
Ornate Box Turtle		Travis W. Taggart
Pond Slider		Sternberg Museum of Natural History
Lizards		Fort Hays State University
Great Plains Skink		Hays, Kansas 67601

KHS 2013 Spring Field Trip to Schermerhorn Park, Cherokee County

The KHS met in Schermerhorn Park in Cherokee County 26-28 April 2013. Counts took place around Schermerhorn Park and on private property centered around (37.099734°, -94.655167°). An adult Yellow-bellied Slider (*Trachemys scripta scripta*) was collected in a pond on the Wildlife Areas adjacent to Shoal Creek and just south of the Southeast Kansas Nature Center. There were 602 individuals of 49 species discovered by the 133 participants. A special thanks to Linda Phipps, the Southeast Kansas Nature Center, the Kansas Department of Wildlife, Parks, and Tourism, and the City of Galena for their generous hospitality.

Amphibians	Crawfish Frog	7
Frogs	American Bullfrog	4
American Toad.....	Green Frog	9
Fowler's Toad	Southern Leopard Frog	50+
Blanchard's Cricket Frog	Salamanders	
Gray Treefrog complex	Small-mouthed Salamander	14
Spring Peeper.....	Long-tailed Salamander	11
Boreal Chorus Frog	Cave Salamander.....	6
Eastern Narrow-mouthed Toad.....	Grotto Salamander	2

Eastern Newt	7	Yellow-bellied Kingsnake	6
Reptiles		Western Milksnake	8
Turtles		Speckled Kingsnake	2
Snapping Turtle	2	Rough Greensnake	4
Southern Map Turtle	5	Western Ratsnake	12
False Map Turtle	1	Flat-headed Snake	54
River Cooter	2	Copperhead	13
Three-toed Box Turtle	24	Western Wormsnake	9
Ornate Box Turtle	4	Ring-necked Snake	68
Pond Slider	3	Plain-bellied Watersnake	2
Eastern Musk Turtle	3	Diamond-backed Watersnake	1
Spiny Softshell	1	Dekay's Brownsnake	5
Lizards		Red-bellied Snake	1
Prairie Lizard	2	Western Ribbonsnake	4
Coal Skink	5	Common Gartersnake	1
Common Five-lined Skink	18	Rough Earthsnake	5
Broad-headed Skink	2		
Little Brown Skink	24		
Six-lined Racerunner	4		
Snakes			
North American Racer	3		
Coachwhip	2		

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KHS 2013 Summer Field Trip to Coldwater Lake, Comanche County

The KHS met at Coldwater Lake in Comanche County 6-8 July 2013. Counts took place in eastern Comanche and western Barber counties. There were 348 individuals of 35 species discovered by the 38 participants.

Amphibians		Prairie Skink	2
Frogs		Six-lined Racerunner	19
Great Plains Toad	16	Snakes	
Woodhouse's Toad	4	Glossy Snake	6
Blanchard's Cricket Frog	50+	North American Racer	12
Western Narrow-mouthed Toad	2	Coachwhip	7
Plains Leopard Frog	4	Yellow-bellied Kingsnake	8
American Bullfrog	8	Speckled Kingsnake	7
Plains Spadefoot	6	Great Plains Ratsnake	5
Salamanders		Gophersnake	25
Western Tiger Salamander	50+	Long-nosed Snake	12
Reptiles		Prairie Rattlesnake	6
Turtles		Massasauga	8
Snapping Turtle	3	Plains Hog-nosed Snake	3
Ornate Box Turtle	14	New Mexico Threadsnake	1
Pond Slider	9	Plain-bellied Watersnake	6
Yellow Mud Turtle	1	Dekay's Brownsnake	2
Spiny Softshell	3	Common Gartersnake	1
Lizards			
Slender Glass Lizard	11		
Eastern Collared Lizard	6		
Texas Horned Lizard	21		
Prairie Lizard	9		
Great Plains Skink	1		

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KHS 2013 Fall Field Trip to Butler County State Lake

The KHS met in Butler County 6-8 September 2013. Unseasonably hot weather (98°+ F) made finding herps away from water difficult. Two separate excursions were conducted along portions of Otter Creek in adjacent Elk County, just east of Beaumont. There were 181 individuals of 31 species discovered by the 88 participants.

Amphibians	
Frogs	
Woodhouse's Toad	2
Blanchard's Cricket Frog	50+
Gray Treefrog complex	2
Western Narrow-mouthed Toad.....	3
Plains Leopard Frog	16
American Bullfrog	7
Reptiles	
Turtles	
Snapping Turtle	3
Painted Turtle	17
Ornate Box Turtle	1
Pond Slider	4
Spiny Softshell.....	7
Lizards	
Slender Glass Lizard	1
Great Plains Skink	7
Six-lined Racerunner	6
Snakes	
North American Racer	2

Yellow-bellied Kingsnake	1
Western Milksnake	3
Speckled Kingsnake	1
Rough Greensnake	1
Western Ratsnake	3
Gophersnake	1
Copperhead.....	6
Massasauga	1
Ring-necked Snake	6
Plain-bellied Watersnake	9
Diamond-backed Watersnake	2
Common Watersnake	12
Graham's Crayfish Snake.....	3
DeKay's Brownsnake	2
Common Gartersnake	1
Lined Snake.....	1

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KHS 2014 Field Trips
to be held at

Spring
Barber County/Sun City
18-20 April 2014

Summer
Cimarron National Grassland
25-27 July 2014

Fall
*Woodson County State Fishing Lake
and Wildlife Area*
26-28 September 2014

The
KHS 41st Annual Meeting
will be held at

*Kansas State University,
Manhattan, Kansas*

7-9 November 2014

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NOTES

2013 Kansas Herpetofaunal Counts

18 May, Chautauqua County

Additional observer: Cassandra L Cieslak

Between the hours of 18:00 and 23:00 on roads surrounding the towns of Elgin and Sedan, the following herpetofaunal observations were made: 6 Ornate Box Turtles (*Terrapene ornata*), 11 Timber Rattlesnakes (*Crotalus horridus*), 1 Western Ribbon Snake (*Thamnophis proximus*), 1 Eastern Collared Lizard (*Crotaphytus collaris*), 2 Rough Green Snakes (*Ophedrys aestivus*), 12 Copperheads (*Agkistrodon contortrix*), 1 Western Rat Snake (*Pantherophis obsoletus*), 4 American Toads (*Anaxyrus americanus*), 1 Plains Leopard Frog (*Lithobates blairi*), 1 Yellow-bellied Kingsnake (*Lampropeltis calligaster*), 1 Speckled Kingsnake (*Lampropeltis holbrooki*), 2 Diamondback Water Snakes (*Nerodia rhombifer*), 1 Gopher Snake (*Pituophis catenifer*). Temperatures started at 82°F and hovered at or above 78°F for the duration of road-cruising. Relative humidity was around 80% and storms were firing heavily to the south and west, although there was no precipitation before or during our efforts.

Timber Rattlesnakes were observed on paved and maintained dirt roads scattered throughout many habitats types, including juniper woodlands, rocky hillsides, open grasslands, and any combination of the above. These snakes were active both before and after sunset. The majority of the specimens observed were young at less than ~450 mm (18 inches), while three individuals were mature adults. Five individuals were found alive on the road (AOR), while the remainders were dead on the road (DOR).

Interestingly, the two specimens of *O. aestivus* were found DOR on a dirt road less than a meter apart; one was female and the other male. It is assumed the female was struck first and the male had followed a pheromone trail to her body and was then struck. This conclusion is vindicated by the female appearing to have been hit prior to the male, as the male appeared to be less decomposed and had fewer scavengers present on his body.

All 12 Copperheads were found alive on a single dirt road in close proximity to a river. Copperhead movement began at dusk and within 45 minutes, no more individuals were observed. Sizes ranged from near 127 mm (5 inches) juveniles to 711 mm (28 inches) adults. The remaining species observed were all on paved roads. All remaining snakes observed were DOR, while all other herpetofauna were AOR.

25 May, Harvey County

Select roads in southwestern Harvey County were searched via road-cruising from 18:00 to 22:30. Herpetofauna observed were 2 Eastern Racers (*Coluber constrictor*), 3 Plains Garter Snakes (*Thamnophis radix*), 3 Gophersnakes (*Pituophis catenifer*), 4 water snakes (genus *Nerodia*) that eluded us before we could confirm identification to species, 1 Graham's Crayfish Snake (*Regina grahamii*), 2 Massasaugas (*Sistrurus catenatus*), 1 Northern Painted Turtle (*Chrysemys picta*), 1 Yellow Mud Turtle (*Kinosternon flavescens*), and multitudes of Chorus Frogs (genus *Pseudacris*) calling. The temperatures were in the upper 70's (°F) with strong winds and the moon was late in rising.

28 May, Sedgwick County to Comanche County and back

With storms on the horizon, temperatures in the mid 80's (°F), and sustained winds at greater than 30 mph, we made a hasty decision to head west quickly to Barber and Comanche counties to see what luck we could have road-cruising for herps. Regardless of whether it rained or not, it promised to be a good night. If it stayed dry, snakes should be moving. If it rained, amphibians would do the same. The roads from Wichita, which took us through Sedgwick, Sumner, and Harper counties, produced the following: 1 Gophersnake (*Pituophis catenifer*), 1 Common Garter Snake (*Thamnophis sirtalis*), 5 Western Rat Snakes (*Pantherophis obsoletus*), 2 Prairie Kingsnakes (*Lampropeltis calligaster*), and 1 Ornate Box Turtle (*Terrapene ornata*); all had been hit by cars. In addition to the casualties, 1 Northern Painted Turtle (*Chrysemys picta*), and 1 Ornate Box Turtle were observed alive. Barber County yielded only 1 AOR Western Rat Snake (*P. obsoletus*), and 1 DOR Texas Horned Lizard (*Phrynosoma cornutum*). As we headed west, temperatures dropped quickly just ahead of the storm that was stalled out over Comanche County. Having little luck with reptiles and no rain yet for amphibians, the choice was made to drive into the storm. As a result of driving westward towards the rain, we observed 1 AOR Barred Tiger Salamander (*Ambystoma mavortium*), 1 DOR Massasauga (*Sistrurus catenatus*), and >50 Plains Spadefoots (*Spea bombifrons*), the latter of which were calling from a flooded field. Our route back to Wichita took us through Kingman County and north through the western border of Reno

County, in search of more *Spea* and *Sistrurus* observations. Kingman County added richness to our list with 1 AOR and 1 DOR Great Plains Toads (*Anaxyrus cognatus*), and 1 AOR Plains Leopard Frog (*Lithobates blairi*). Our last finds of the night were an additional 20 or so AOR *S. bombifrons*, 2 AOR *S. catenatus*, and 1 DOR Eastern Racer (*Coluber constrictor*).

31 May, Harvey and Sedgwick Counties

With prime conditions for herping, including several inches of rain in the previous few days, abundant sunshine, and highs in the 80's (°F), a trip to road cruise southwestern Harvey County was in order. Cruising conducted between 18:30 and 20:30 yielded 2 DOR Western Rat Snakes (*Pantherophis obsoletus*), 1 DOR Common Garter Snake (*Thamnophis sirtalis*), 1 AOR and 1 DOR Common Snapping Turtle (*Chelydra serpentina*), 3 AOR and 1 DOR Yellow Mud Turtles (*Kinosternon flavescens*), and 1 AOR and 3 DOR Ornate Box Turtles (*Terrapene ornata*) within Harvey County. As the sun set, temperatures dropped quickly to around 70°F. Roads travelled within Sedgwick County provided further visual observations of 1 AOR and 1 DOR Common Snapping Turtle, 2 DOR Ornate Box Turtles and aural observations of the grey tree frog complex (*Hyla chrysoscelis/versicolor*) and several Boreal Chorus Frogs (*Pseudacris maculata*).

1 June, City of Wichita, Sedgwick County

A leisurely walk by one of us (DRM) led to a number of herpetofaunal observations. The walk took place between 11:30 and 13:30 along the Arkansas and Little Arkansas rivers in Wichita. The skies were mostly sunny, with temperatures in the mid 70's (°F) and a strong breeze. Due to heavy rains across the region in the prior 72 hours, both rivers were flowing strongly and were exceptionally turbid. Eight Northern Water Snakes (*Nerodia sipedon*), 5 Spiny Softshell Turtles (*Apalone spinifera*), 2 Northern Painted Turtles (*Chrysemys picta*), 3 Six-lined Racerunners (*Aspidocheilus sexlineata*) and 12 individuals of the False/Ouachita Map Turtle complex (*Graptemys pseudogeographica/ouachitaensis*) were observed in or along the rivers.

24-25 August, Sumner to Comanche County and back

Roads were driven along the Kansas/Oklahoma border between Caldwell (Sumner County) and Coldwater (Comanche County) in an attempt to locate Checkered Garter snakes (*Thamnophis marcianus*), which we hypothesized could be at an activity peak from the past two years after severe storms dumped record-breaking amounts of precipitation over southern Kansas in the previous month. Daytime temperatures had climbed back to the high 90's (°F) after

several weeks of below-average readings. The high temperature recorded on 24 August in Wichita was 93°F and relative humidity across the region averaged approximately 55%. Moonrise was 22:24 and lunar illumination was 74%. Cloud cover was scattered and dissipated before 23:00. One DOR Western Ratsnake (*Pantherophis obsoletus*), 1 AOR Ornate Box Turtle (*Terrapene ornata*) and 2 AOR Common Garter Snakes (*Thamnophis sirtalis*) were encountered on dirt roads in southern Sumner County. Two AOR Speckled Kingsnakes (*Lampropeltis holbrookii*) were found crossing roads in Harper County, one each on a dirt road and an asphalt highway. Comanche County yielded 1 DOR Milksnake (*Lampropeltis triangulum*), and 1 DOR Gopher Snake (*Pituophis catenifer*) on blacktop. While driving on blacktop through Barber County, 1 AOR Prairie Rattlesnake (*Crotalus viridis*), and 1 DOR Western Ribbon Snake (*Thamnophis proximus*) were observed. Sadly, no *T. marcianus* were observed that night.

21-22 July, Sedgwick County to Comanche County and back

Starting around 18:00 a route containing both paved and dirt roads was driven looking for herpetofauna in south-central Kansas. Temperatures were highest upon initiation of the trip at 86°F and stayed above 78°F for the entirety of the night's cruising. Cloud cover was minimal, with clouds receding by 22:00. The moon was full, and rose around 21:30. Relative humidity hovered around 60% and very small, isolated patches of rain fell through the area. Frequent storms had visited the area in the previous 10 days, but no measureable precipitation had occurred in the preceding two days.

One DOR Slider (*Trachemys scripta*) was observed in Sedgwick County. Harper County roads yielded 1 AOR and 2 DOR Ornate Box Turtles (*Terrapene ornata*). On Barber County roads we observed the following: 1 DOR Gopher Snake (*Pituophis catenifer*), 1 DOR Common Garter Snake (*Thamnophis sirtalis*), 2 AOR and 1 DOR Massasauga (*Sistrurus catenatus*), 25+ Plains Spadefoot Toads (*Spea bombifrons*), 15+ Great Plains Toads (*Anaxyrus cognatus*), 1 AOR Texas Horned Lizard (*Phrynosoma cornutum*), and 1 DOR Western Slender Glass Lizard (*Ophisaurus attenuatus*). Further west, we observed 1 AOR Plains Black-headed Snake (*Tantilla nigriceps*), 50+ Plains Spadefoot Toads (*Spea bombifrons*), and 15+ Great Plains Toads (*Anaxyrus cognatus*) moving across roads in Comanche County. No rain had preceded the movement of the *Tantilla*, noted from dry soil and asphalt conditions nearby. All specimens of *S. bombifrons* and all but a single adult *A. cognatus* were newly metamorphosed individuals. The sole *P. cornutum*

observed was active on a paved road, within suitable habitat, after 01:00. The moon was full and directly overhead. The pavement was dry, so the rain had not flushed the lizard from cover. We had observed this once before a month prior on the same road. One of us (KS) drove almost the exact same route on the night of 10-11 June and observed, among a large species richness and diversity, 5 *P. cornutum* highly active between 23:00 and midnight. While it is not unheard of to encounter chiefly diurnal species within

approximately an hour after sunset, this observation hints at yet another poorly understood facet of *Phrynosoma* natural history. A brief search for information on this topic has shed little light into the mystery. One possible explanation is that the full moon provided adequate illumination to allow for foraging, but the subject needs further investigation.

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The Rediscovery of Barred Tiger Salamanders (*Ambystoma mavortium*) in Lyon County, Kansas

AMBYSTOMA MAVORTIUM (Barred Tiger Salamander). USA: KANSAS: LYON CO.: Ross Natural History Reservation. 6.5km west of Americus (38.494876°N, 96.335767°W, WGS84). On 25 November 2012, two adult *A. mavortium* were collected at the bottom of a 10m deep well near the main building on the reservation. There was no standing water in the well, although the bottom third of it was clearly damp, with water dripping from the rocks. The nearest standing water on the Ross is a sewage pond 90m away, Gladfelter Pond approximately 300m away, and a spring which reaches the surface approximately 500m from the well. These salamanders may have had subterranean access to one or more for breeding, but this is unverified at present. Both salamanders were captured in

the same Gee's crawfish trap, which had been set in the well five days prior. This record marks the first documented tiger salamander in Lyon County since 1959, despite repeated searches during the intervening years, and suggests the possibility that other wells in the county are host to undetected salamanders. Photographic vouchers of each specimen were deposited at Fort Hays State University's Sternberg Museum of Natural History (FHSM 16496-7).

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“Herps in Havensville” Herp Surveys

In 2012, Topeka Collegiate School (TCS) and the Havensville community (Pottawatomie County) teamed up to launch the first “Herps in Havensville” event. It was advertised as a family-friendly event where participants would scour a designated area looking for frogs, toads, salamanders, turtles, snakes, and lizards. A “count” would be kept of the different herp species observed and a written report would be submitted to the Kansas Herpetological Society. Anyone with an interest in nature, Kansas herps, or just a walk in the prairie was invited.

Although the intention was to be a spring herp count, the first event was held June 23rd, when the area around Havensville was experiencing moderate drought conditions (US Drought Monitor, June 19, 2012). Two TCS families were able to join us which pulled our participation numbers up to nineteen, five children and fourteen adults. For all the hundreds of rocks turned, only a few herps were found: a Six-lined Racerunner (*Aspidoscelis sexlineata*), a Milk Snake (*Lampropeltis triangulum*), and several Blanchard’s Cricket Frogs (*Acris blanchardi*). The children were not disheartened for they found their own fun chasing frogs, catching grasshoppers, and collecting fossils.

In preparation for the second “Herps in Havensville” event, Ora Martindale (Havensville) took flyers to the Onaga Elementary School and Mary Kate Baldwin (KHS member) invited families from TCS. A team of helpers from Topeka who attended the 2012 event were invited again. One of them, Caitlin Seals Schwanke (TCS alumna), was asked to take photographs of the event. Cameron Seals Schwanke (TCS alumna) and Matt Ellis were there to help students turn rocks and identify captured animals. The final participation count was exactly 50 people: 20 students (K-6) and 30 adults (see list below). Nine towns and cities were represented (Havensville, Topeka, Manhattan, Onaga, Hoyt, Emmett, St. Marys, Auburn, and Ozawkie).

On Saturday, April 20, 2013, the group gathered in front of the Christian Church in Havensville, Kansas and caravanned to a nearby ranch. Northern Pottawatomie County was again experiencing moderate drought conditions (U.S. Drought Monitor, April 16, 2013) and the month of April was unusually cold. The temperature fell to 28 F the previous night and at 9:00 am when they headed across the prairie, people were bundled up in hats, coats, and scarves. The afternoon high reached a mere 59 F. It rained 0.68 inches the Wednesday before so the earth under the rocks was damp. It snowed 0.30 inches on the Tuesday after.

Caleb Ahlquist, a student at K-State, was our guide to the best rock, creek, and pond areas on the ranch. It was so cold, Mary Kate overused the joke, “Every-

thing we find, we will catch!” She was not surprised when a child walked up with a muddy, balled up Eastern Racer (*Coluber constrictor*). Although it had alert eyes and an exploring tongue, it remained balled up as students passed it around. Three cold Great Plains Skinks (*Plestiodon obsoletus*) in great condition were caught. They looked fat, shiny, and had full tails (one was regenerated). The seven captured Ringneck Snakes (*Diadophis punctatus*) and the Lined Snake (*Tropidoclonion lineatum*) were muddy and thin. Many Blanchard’s Cricket Frogs (*Acris blanchardi*) were found but did not seem to be as affected by the cold so were not as easily caught. Two turtle shells were found, one from an Ornate Box Turtle (*Terrapene ornata*) and one from a Northern Painted Turtle (*Chrysemys picta*). These were the simplest catches! Mary Kate identified each animal and Erica Peterson (KHS member) kept track of the count. They ended up with seven different species and 34 individual animals.

Lucia Baldwin (KHS member) stayed behind with Sue and Tracy Ahlquist (Caleb’s parents) and Sue Martindale to help organize the picnic lunch. Everyone came back hungry. After lunch, students were given the opportunity to hold and photograph the day’s catch. Mary Kate also provided a Great Plains Rat Snake (*Pantherophis emoryi*) and a Gophersnake (Bullsnake) (*Pituophis catenifer*) for people to hold.

Adults and children stayed positive throughout the morning as they fought the cold and wind. One dad was overheard gleefully proclaiming, “I caught a frog. I’m happy!” The success of the day was measured by the number of participants, the number of animals caught, and by the number of smiles throughout the morning of prairie exploration.

Participants of the 2013 count were: Caleb Ahlquist, Ora Martindale, Mary Kate Baldwin, Erica Peterson, Laura Baldwin, Wesley Baldwin, Cameron Schwanke, Caitlin Seals Schwanke, Matt Ellis, Caroline Seals, Zoe Burkholder, Coral Aboud, Diana Harvey, Christopher Hargreave, Grady Harris, Justin Miller, Jack Gonzales, Kelli Gonzales, John Gonzales, Halie Jeanneret, Alexis Jeanneret, Roberta Randel, Linda Porter, Mike Porter, Kyler Holz, Dianne Sands, Lucas Sands, Luxanna Sands, Ethan McCart, Elmer Robinson, Inke Robinson, Sascha Robinson, Lyn Huffaker, Carson Cowley, Bernard Brosa, Lexi Friderici, John Sorrenti, Rose Sorrenti, Corey McCarty, Peyton Cowley, Jillian Wiley, Thomas Wiley, Jennifer Smiley, Michael Smiley, and Marley Smiley.

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Photos from "Herps in Havensville" Herp Surveys



ARTICLES

LARVAL PERIOD AND TRANSFORMATION SIZE IN THE WOOD FROG (*LITHOBATES SYLVATICUS*) IN A VERNAL POOL AT THE POWDERMILL NATURE RESERVE IN PENNSYLVANIA

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*Abstract- Monthly distributions of body sizes of tadpoles from a single vernal pool during 2009-2011 in western Pennsylvania were used to determine larval duration and transformation size of the Wood Frog (*Lithobates sylvaticus*) from a southern site of this geographically wide-ranging species. After March-April breeding, tadpoles transformed at an average body size of 13 mm in June after an approximately two month larval period. Breeding season and transformation dates conformed to latitudinal pattern of later and shorter breeding of northern sites. However, both larval period and body size at transformation at my study site, subject to local environmental conditions, were on the lower endpoints of the respective ranges for the species.*

INTRODUCTION

The Wood Frog, *Lithobates sylvaticus* (LeConte, 1825) is a monotypic species of North America occurring as far north as Labrador and Alaska with much of its southerly range in the eastern part of the United States (Conant and Collins, 1998; Redmer and Trauth, 2005). Its occurrence in Pennsylvania is essentially statewide (Hulse et al., 2001; Meshaka and Collins, 2010).

Breeding seasons of the Wood Frog follow a north-south gradient, with the shortest seasons and those starting latest occurring in the North (Redmer and Trauth, 2005). Larval transformation in this species was found to occur during June-August (Wright and Wright, 1949). Depending on water temperature eggs hatched 10-24 days after oviposition (Wright and Wright, 1949), and the larval period was found to range 65-130 days (Redmer and Trauth, 2005). Body size at transformation in the Wood Frog was found to range 16-22 mm (Wright and Wright, 1949). In Pennsylvania, breeding has been reported in March and April (Seale, 1982; Shaffer, 1991). Hulse et al. (2001) noted that in Pennsylvania, breeding occurred as early as 4 March, seldom lasted more than one week, and tadpoles transformed at 17-20 mm. Here, I provide data on the timing of breeding, transformation dates, larval duration, and body sizes at transformation from a single site in the Allegheny Mountains of western Pennsylvania and compare my findings with those of other populations along a latitudinal gradient.

MATERIALS AND METHODS

A single shallow vernal pool (Figure 1) comprised the study site at Powdermill Nature Reserve, an 856.2 ha field station located in the Ligonier Valley of the Allegheny Mountains in Westmoreland County of western Pennsylvania. First outlined in 1948 and established in 1956 by then Assistant Director of the Carnegie Museum of Natural History, Dr. M. Graham Netting, PNR consists of mix forests, fields, ponds and streams, and serves as a field station for the Carnegie Museum amenable for longterm study of natural systems and their components. The location of the station is within the geographic distributions of many amphibian species (Conant and Collins, 2002; Hulse et al., 2001). The Wood Frog is one of four ranid frogs on the station (Meshaka et al., 2008).

The pond is a 600 m² vernal pool located immediately opposite Cabin 1 within 50 m of Rt. 381. When full in late winter its water depth is approximately 30-40 cm. In all three seasons, water did not remain past June. Surrounded by mixed deciduous forest, this pond was visited by only one other amphibian, the Green Frog (*Lithobates clamitans clamitans*), which did not breed there.

Aquatic samples were taken with a dipnet. Samples were preserved in formalin and stored in the Section of Zoology and Botany at the State Museum of Pennsylvania, Harrisburg, Pennsylvania. Tadpoles were scored as per Gosner (1960). For practical purposes, tadpoles were in categories of having poorly-developed hind legs (less than Gosner stage 37) or



Figure 1. The Wood frog (*Lithobates sylvaticus*) breeding site examined during 2009-2011 at the Powdermill Nature Reserve, Rector, Westmoreland County, Pennsylvania, taken on 30 June 2011. Photographed by Joe Stavish.

well-developed hind legs (Gosner stage of at least 37). Metamorphoslings were distinguished from tadpoles by the presence of forelimbs (Gosner stage 42) and distinguished from juveniles by the presence of a tail. Body lengths of all size-classes and developmental stages of tadpoles were measured in mm snout-vent length (mm SVL). Statistical analysis was conducted with the use of Excel. Means were followed by + 2 standard deviations, and significance was recognized at $P < 0.05$.

RESULTS AND DISCUSSION

In 2011, choruses were first heard on 13 March (Cokie Lindsay, pers. comm.), and on 11 April, I found an egg mass that was in the process of hatching. One of the hatchlings measured 7.6 mm in total length. To that end, March-April breeding has been reported for Pennsylvania (Seale, 1982; Shaffer, 1991) and earliest hatching recorded in Pennsylvania ranged 2 April-23 May (Hulse et al., 2001). A latitudinal and altitudinal gradient associated with breeding season and duration in the Wood Frog such that northerly and higher elevational populations begin breeding later and for a shorter time than do southerly and lower elevational (warmer) populations (Redmer and Trauth, 2005). Pennsylvania dates of breeding, including that of PNR, did not conflict with short early-mid spring breeding of this species at this latitude (Redmer and Trauth, 2005).

In all three seasons, the Wood Frog had transformed by the end of June (Figure 2). In 2009, a 19 May sample of tadpoles ranged 13.4-16.5 mm. By the next visit of 11 June, tadpoles had transformed and no individuals were at the pool. In 2010, sampling of the vernal pool commenced on 27 April. Individuals with well-developed rear legs were not captured until 24 May when they greatly outnumbered

tadpoles of earlier development. On 16 June, three metamorphoslings were captured among many tadpoles with well-developed rear legs. On both 19 July and 17 August, the pool was muddy, nearly dry, with no evidence of Wood Frogs. As in years past only tadpoles with poorly-developed rear legs were present in May 2011 samples. On 7 June, tadpoles with poorly-developed rear legs and those with well-developed rear legs were present in the sample as were metamorphoslings.

Elsewhere, larval transformation dates of the Wood Frog have been reported for a short period of time generally in early summer: by late May in north-central Arkansas (Trauth et al., 1995), by the end of July in northern Alabama (Davis and Fokerts, 1986), June-July in Connecticut (Klemens, 1993), May-June in Illinois (Smith, 1961), June-July in Georgia (Camp et al., 1990), by the end of July for 95% of tadpoles in southern Rhode Island (Paton and Crouch, 2002), late May-early June in Tennessee (Meeks and Nagel, 1973), June-August for the species (Wright and Wright, 1949). However, in Labrador, where eggs were found in June, individuals with tail remnants were found in September (Hillenbrand, 1949).

Using the 2011 data, larval period was approximately two months. Monthly distribution of body sizes for past years was suggestive of similarly short larval times and punctuated by a short continuous hydro-period. Comparatively, the larval period at PNR was at the low end of the 65-130 day range provided for the species (Redmer and Trauth, 2005). The length of the larval period of this species does not appear to follow a geographic pattern. For example, the two month larval period of this study in western Pennsylvania was most similar to findings of a minimum of 53 days in Alaska (Herreid II and Kinney, 1967) and 58 days in Massachusetts (Hinckley, 1885) as

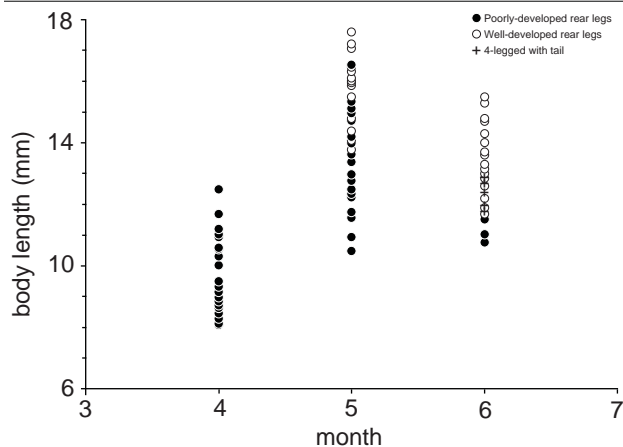


Figure 2. Monthly distribution of body size of tadpoles of the Wood Frog (*Lithobates sylvaticus*) from a vernal pool at the Powdermill Nature Reserve, Rector, Westmoreland County, Pennsylvania, during 2009-2011.

compared to the > 3 months in Alabama (Davis and Folkerts, 1986), and means of 78.3 days in Michigan, 92.2 days in Maryland, and 108.2 days in Virginia (Riha and Berven, 1991). To that end, water temperature (Berven, 1982) and population density (Riha and Berven, 1991), and in some cases genetics (Riha and Berven, 1991) could be major factors responsible for larval period.

For all years combined, 45 tadpoles with well-developed rear legs ranged 11.7-17.6 mm (mean = 14.2 + 1.6 mm). Metamorphosing tails captured on 16 June 2010 measured 12.4, 12.5, and 12.7 mm, and those captured on 7 June 2011 measured 11.8 and 12.8 mm. Elsewhere, weight loss has been reported to have occurred just prior to metamorphosis in the Wood Frog (Riha and Berven, 1991). The body sizes of the five metamorphosing from PNR (mean = 12.3 + 0.4 mm) were smaller than the smallest individuals captured on land in June (14.2 mm SVL) and July (14.5 mm SVL) at PNR during terrestrial trapping in 1982 and 1983 (Meshaka, 2009). Transformation sizes from this study were similar to those reported from the Great Lakes region (10-12 mm) (Harding, 2000) but smaller than those reported for Georgia (15-21 mm) (Camp, Condee, and Lovell, 1990), Indiana (15-16 mm) (Minton, 2001), Maryland (mean = 16.0 mm) (Riha and Berven, 1991), Michigan (mean = 19.7 mm) (Riha and Berven, 1991), Pennsylvania (17-20 mm) (Hulse et al., 2001), Rhode Island (mean = 20.0; range = 11.0-31.0 mm) (URI web site), Virginia (mean = 18.7 mm) (Riha and Berven, 1991), West Virginia (16 mm) (Green and Pauley, 1987), and for the species (16-22 mm) (Wright and Wright, 1949). Transformation size in this species has also been found to be affected by the population density of the tadpoles (Riha and Berven, 1991).

Wood Frog tadpoles of this study were subject to crowding in the warm shallow water of a short hydroperiod small vernal pool. Apparent egg-laying in March or early April conformed to breeding seasons for Pennsylvania and nearby regions, and transformation dates typified those of the species generally. However, both the larval period and the body size at transformation were on the lower endpoints of the respective ranges for the species, corroborating findings that both of these traits were influenced more so by local conditions than by geographic location.

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USE OF AQUATIC HABITAT BY BROWN SNAKES (*STORERIA DEKAYI*)

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The Brown Snake (*Storeria dekayi*) is a small ground-dwelling snake not normally found in aquatic habitats. However, the senior author has commonly observed this species in terrestrial habitat in the near vicinity of streams in karst topography in Wisconsin and Minnesota, perhaps because its typical prey (earthworms and snails) are more readily accessible where the water table is close to the surface. Often these sightings have occurred at dusk on the shoulders of roads adjacent to streams or at bridge crossings. In reporting this species from a variety of habitats, Vogt noted that, "They seem to be found only in fairly moist situations, although they are in no way aquatic." (Vogt, R. C. 1981. *Natural history of amphibians and reptiles of Wisconsin*. Milwaukee Public Museum, Milwaukee.) Here we report observing Brown Snakes in aquatic habitats on two occasions.

On the afternoon of 29 September 2010, while canoeing at Bartlet Lake in the floodplain of the Mississippi River, Winona County, Minnesota (44.075°N, -91.697°W; WGS 84), we encountered an adult Brown Snake approximately 10 m from the wooded shoreline swimming in open water from one lily pad to another. Recent heavy rain had caused the Mississippi River to reach flood stage with water level in Bartlet Lake ~0.5 m higher than normal. The adjacent floodplain forest floor was submerged, although not all areas around the lake were flooded.

On the afternoon of 16 August 2012, while wading upstream and angling in Rattlesnake Creek, Grant County, Wisconsin (42.765°N, -90.922°W; WGS 84), the senior author observed a large adult Brown Snake swim ~ 7 m across the stream at the head of a pool. There was no obvious disturbance on the shoreline from which the snake departed. Not long before the snake crossed the creek, an adult Smallmouth Bass (*Micropterus dolomieu*) was hooked from a location in the path that the snake followed, and the presence of a substantial population of bass would seem to pose a significant risk of predation for small snakes swimming at the surface. We are not aware of any reports of predation by fish on Brown Snakes, but Knapik and Hodgson reported predation by Largemouth Bass (*M. salmoides*) on the closely related Red-bellied Snake (*S. occipitamaculata*) (Knapik, P.G. and J. R. Hodgson. 1986. *Life history notes. Storeria occipitamaculata* (red-belly snake) Predation. *Herpetological Review* 17: 22).

These two instances of aquatic behavior differ in that the case at Bartlet Lake may have been a response to flooding at an atypical time of year, whereas the case at Rattlesnake Creek appeared to represent voluntary swimming behavior. In both cases aquatic activity was observed in the afternoon during full daylight, when Brown Snakes are typically under cover.

THE HANDLING AND INGESTION OF A BROWN ANOLE (*ANOLIS SAGREI*) EGG BY A SOUTHERN RINGNECK SNAKE (*DIADOPHIS PUNCTATUS PUNCTATUS*)

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The Southern Ringneck Snake has been observed preying upon the eggs of the Brown Anole, *Anolis sagrei*, in southern Florida (Meshaka et al. 2004. The Exotic Amphibians and Reptiles of Florida. Krieger Publishing, Company. Malabar, Florida, USA, 155 pp.), but little is known about the ingestion process. Here we describe an observation of the process by which a Brown Anole egg was handled and ingested by a Southern Ringneck Snake in southern Florida.

On 5 May 2011, at 1420 h, TMB observed a Southern Ringneck Snake with an egg held in its mouth. This observation was made in a pine flatwood community west of Naples, (26°12.141'N, 81°38.516'W), Collier County, Florida, USA. When first observed, the snake held the egg from the side and was shaking its head abruptly from side-to-side. The snake was then captured, the egg removed from its mouth, and both were then measured with ruler and calipers to nearest 1.0 mm or 0.1 mm. The snake was 212 mm in total length, and the egg was 8.9 X 5.8 mm. Distinctive longitudinal fissures that covered the surface of the egg visibly identified it as that of *A. sagrei* (Vincent. 1999. *Anolis* Newsletter 5:123-125). Immediately, the egg was placed back in the snake's mouth in the original position, and the snake was released where found. During the next twelve minutes, the snake vigorously shook the egg until it was slowly shifted lengthwise within the snake's open mouth. As this happened, the snake's jaw stretched around the egg until it had eventually enveloped the entire circumference of the egg. Once the egg was positioned lengthwise within the snake's mouth, the snake then alternately moved its jaws forward and to the sides,

one mandible at a time, to ingest the egg. Within 38 minutes, the snake swallowed the entire egg and its mouth was fully closed. By having a flexible lower jaw rather than a rigid one and separately moving each mandible, along with the outward and forward sweeping of the palatomaxillary arches, snakes are capable of expanding their jaws and "walking" their heads over their prey and accommodating large food items (Gans. 1961. Amer. Zool. 1:217-227).

The Southern Ringneck Snake spends most of its time hidden either underground or under the cover of leaves or rocks (Myers. 1965. Bul. Fl. State Mus. Biol. Sci. 10:43-90) and may actively or passively prey upon the eggs of the Brown Anole that are buried at a depth of 3-5 cm (Lazell. 1989. Wildlife of the Florida Keys: A Natural History. Island Press Washington, D.C., USA, 254 pp.). In south Florida, the Brown Anole was found to have laid one egg every two weeks throughout the year unless conditions were too cool or dry (Lazell., op. cit.). Other studies showed that the frequency of gravid females was highest during April - July, and no females were gravid during November - February (Lee et al. 1989. Copeia 1989:930-937). This lizard is known to be widespread in most habitats in south Florida, where it often greatly outnumbers other anoles (Meshaka et al., op. cit.), with population densities exceeding 0.97 individuals/m² (Enge et al. 2004. Fl. Scientist 67:194-204). Therefore, in areas of syntopy, Brown Anole eggs could provide a seasonally plentiful and nutritious food resource for many size-classes of the Southern Ringneck Snake, the largest of which with presumably less handling time than the individual reported here.

About the Kansas Herpetological Society

The KHS is a non-profit organization established in 1974 and designed to encourage education and dissemination of scientific information through the facilities of the Society; to encourage conservation of wildlife in general and of the herpetofauna of Kansas in particular; and to achieve closer cooperation and understanding between herpetologists, so that they may work together in common cause. All interested persons are invited to become members of the Society. Membership dues per calendar year are \$15.00 (U.S., Regular), \$20.00 (outside North America, Regular), and \$20.00 (Contributing) payable to the KHS. Send all dues to: KHS Secretary, (address inside the front cover)

KHS Meetings

The KHS holds an annual meeting in the fall of each year. The meeting is, minimally, a two day event with lectures and presentations by herpetologists. All interested individuals are invited to make presentations. The annual meeting is also the time of the Saturday night social and fund-raising auction.

Field Trips

The KHS hosts three field trips each year, one each in the spring, summer, and fall. Field trips are an enjoyable educational experience for everyone, and also serve to broaden our collective understanding of the distribution and abundance of the amphibians, reptiles, and turtles in Kansas. All interested persons are invited to attend.

Editorial Policy

Collinsorum, currently issued quarterly (March, June, September, and December), publishes all society business.

Submission of Manuscripts

As space allows, *Collinsorum* publishes all manner of news, notes, and articles. Priority of publishing is given to submissions of Kansas herpetological subjects and by KHS members; however all submissions are welcome. The ultimate decision concerning the publication of a manuscript is at the discretion of the Editor. Manuscripts should be submitted to the Editor in an electronic format whenever possible. Those manuscripts submitted in hard copy may be delayed in date of publication. Manuscripts should be submitted to the Editor no later than the 1st of the month prior to the month of issuance. All manuscripts become the sole possession of the Society, and will not be returned unless arrangements are made with the Editor.

Reprints & Artwork

Collinsorum publishes original peer-reviewed submissions under the Articles and Notes sections. Upon review, acceptance, and publication, Portable Document File (PDF) copies are provided gratis to the author on request. Figures and photographs submitted with manuscripts are welcome, but must be sized appropriately by authors for this journal's column sizes (i.e., 19.5 or 39 picas wide). Particular attention should be paid to reduction of text on the figures.

Societal Awards, Grants, and Recognitions

Distinguished Life Members

Individuals selected as *Distinguished Life Members* are chosen by the KHS Executive Council based on their distinguished published research papers on Kansas herpetology.

Bronze Salamander Award

Established in 1987, this Award is presented to those individuals whose efforts and dedication to the Kansas Herpetological Society go far beyond the normal bounds. The recipients of this Award have given exemplary service to the KHS, and are presented with an elegant bronze sculpture of a Barred Tiger Salamander.

The Howard K. Gloyd - Edward H. Taylor Scholarship

Established in 1993, *The Gloyd-Taylor Scholarship* is presented annually by the Kansas Herpetological Society to an outstanding herpetology student. The scholarship is a minimum of \$300.00 and is awarded on the basis of potential for contributing to the science of herpetology. Students from grade school through university are eligible.

The Alan H. Kamb Grant for Research on Kansas Snakes

KHS members only are eligible to apply for *The Alan H. Kamb Grant for Research on Kansas Snakes*, which was established in 2001. The recipient of the grant will be selected by the KHS Awards Committee. A minimum award of \$300 is given annually.

The Henry S. Fitch - Dwight R. Platt Award for Excellence in Field Herpetology

KHS members only are eligible to apply for *The Henry S. Fitch - Dwight R. Platt Award for Excellence in Field Herpetology*, which was established in 2010. The recipient of the grant will be selected by the KHS Awards Committee. The award will be given annually when sufficient funds have been raised to establish a trust.

The George Toland Award for Ecological Research on North American Herpetofauna

This CNAH Award was established in 2008 in recognition of the scientific career of George Fredrick Toland, whose life-long interest in herpetology was passed on to so many of his students. The recipient of this award will be selected by the KHS Awards Committee. A minimum award of \$200 is given annually at the end of the KHS meeting.

The Suzanne L. & Joseph T. Collins Award for Excellence in Kansas Herpetology

This CNAH Award was established by Westar Energy in 1998 in recognition of the achievements of Suzanne L. Collins and Joseph T. Collins. In even years, the Award is bestowed upon an individual who, in the preceding two calendar years, had published a paper of academic excellence on native species of Kansas amphibians, reptiles, and/or turtles, and in odd years, the Award is given to an individual who, in a juried competition, took the best photograph of a Kansas amphibian, reptile, or turtle. *The Collins Award* is minimally \$1,000.00, and is neither a grant nor a scholarship. No nominations or applications can be made for it.

KANSAS HERPETOLOGICAL SOCIETY
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