

ISSN 1540-773X

Collinsorum

THE NEWSLETTER/JOURNAL OF THE KANSAS HERPETOLOGICAL SOCIETY

Volume 13, Number 1

October 2024



1974-2024



Published by the Kansas Herpetological Society
ksherp.com

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KHS BUSINESS

Upcoming 51st KHS Annual Meeting

The 51st annual meeting of the Kansas Herpetological Society will be held 1-3 November 2024 at Fort Hays State University within the FHSU Memorial Student Union (600 Park St., Hays, KS 67601), and the Sternberg Museum of Natural History (3000 Sternberg Drive, Hays, KS, 67601). Oral presentations for Saturday and Sunday will be held at FHSU within the Student Union, and the Social, Poster Session, and Live Auction will be held at the Sternberg Museum on Saturday. Effective immediately, the Society is accepting titles for talks to be presented at the meeting. Please see the meeting webpage for submission details - <https://ksherp.com/event/khs-51st-annual-meeting/>

The KHS annual meeting provides an opportunity for herpetologists and other like-minded individuals interested in amphibians and reptiles to come together for scientific lectures and friendly intellectual discussion. There is ample opportunity for socializing in a collegial and supportive atmosphere. Meeting registration is \$15 for students (includes complimentary membership) and \$30 for non-students.

This year's meeting also provides the opportunity for a Professional Development Workshop on Friday hosted by our keynote, Cale Morris, from the Phoenix Herpetological Society. The cost is \$50 (students) and \$100.

As Venom Manager, Cale Morris is responsible for the PHS Antivenom Bank, cares for over 200 venomous snakes and lizards, and routinely teaches venomous snake handling classes. His research has focused on radio-telemetry and relocation of rattlesnakes in the extensive Phoenix metroplex, human interaction in bite behavior, and venom extraction. He has been a contributor to a number of published works focused on venomous snakes, as well as to media productions that include Animal Planet and National Geographic as well as more contemporary outreach in Buzz Feed News and Tik Tok. Cale has facilitated hundreds of venomous snake relocations and numerous training sessions in the safe handling and transport of venomous snakes.

For this year's Professional Development Workshop (Friday, Nov. 1, Sternberg Museum), Cale will provide a hands-on workshop focused on



KHS 2024 Plenary Speaker, Cale Morris, seen here (left) pit-tagging a sedated rattlesnake and (right) holding a tubed rattlesnake.

the proper handling and transport of venomous snakes. Live snakes from the display collections in the Sternberg Museum of Natural History will be used in each workshop. Sessions will be 3 hours in length and will provide an opportunity for each participant to learn and practice appropriate techniques and procedures with LIVE ANIMALS. The session is limited to 15 persons. Fees are \$50 for students and \$100 for non-students. Session 1330 – 16:30 CDT.

**New Award Announcement:
The Dennis Ferraro Award
for North American
Herpetofaunal Conservation**

Dennis Ferraro is the resident herpetologist and a professor of Conservation Biology at University of Nebraska's School of Natural Resources. He has been a UNL faculty member since 1990. Originally from Connecticut, Dennis grew up fascinated with the creatures in and around ponds near his home. By the time he was in third grade, he knew what a herpetologist was and that he wanted to be one. "My main goal in my career and in life is the conservation of amphibians, reptiles and turtles in North America."

Dennis has attended KHS annual meetings since the late 1980's. He has helped on several committees throughout his time as a KHS member. Dennis and his students have been avid contributors of papers and posters for KHS meetings. As a KHS member, some of Dennis' favorite memories, in increasing order, were interacting with the late Joe Collins, the KHS auction when Joe served as auctioneer, and meeting and engaging with Henry Fitch, Hobart Smith and Joe all together at one time.

From Dennis: "I strongly believe in protecting and preserving biodiversity of the natural world by educating future generations. Therefore, I want to reward students who work hard to make a difference for herpetofauna conservation."

The Ferraro Award will sponsor \$500 annually for a new set of awards for the meeting: The Dennis Ferraro Awards for North American Herpetofaunal Conservation. The awards will be given out at the KHS Annual Meeting to the best student presenters (\$300 talks and \$200 poster). Thank you, Dennis, for your service and generosity to the society!

**51st Annual Meeting
call for auction items**

It's that time again, folks. The KHS annual meeting is right around the corner, and so is the ever-popular live auction! The KHS Auction supports our scholarships, grants, and awards, plus sponsorship of the pocket guide series that features KS herps.

The renowned (and sometimes infamous) KHS Live Auction and associated festivities will be held at the Sternberg Museum of Natural History on the evening of **2 November** immediately following the Poster Session. KHS is calling for all items of semi-relevance to herpetology for the auction. Eligible items may be (but are definitely not limited to) books, tools, art, "art", decor, clothing, and/or items stolen from fellow herpfolk. I say again, we're looking for items best described as consumable, kitschy, herpetocultural, artistic, "artistic", nefarious, wearable, cute, or even educational in nature. The value of many objects is likely to be dubious, and subjective. Please, no live/dead animals or parts though. Please bring auction items to the museum on Saturday evening. Please, no live/dead animals or parts though. Remember, the correlation between price and value is more often a myth than reality at the KHS auction. Bid early, bid often, and support the KHS!

The auction will be held in the lobby of the Sternberg Museum of Natural History. KHS Treasurer Dexter Mardis will be organizing the setup of the auction, along with auctioneers. Anyone wishing to donate items to the auction who cannot attend that night is encouraged to contact the KHS Treasurer at treasurer.khs@gmail.com to make other arrangements.

**"Thank you" from new Collinsorum
editor, Dr. Jackson Roberts**

As the new Zoological Collections Manager at the Sternberg Museum, and as a new member of KHS, I want to thank the society for the warmth and welcoming atmosphere that has permitted a smooth transition to Kansas Herpetology and life here on the plains. Thank you, Dr. Daren Riedle, for trusting me with the Collinsorum, and for your editorial services these previous years. I am excited to continue the Collinsorum's legacy and contributions to Kansas Herpetology!

Articles

Adult body sizes and fecundity estimates of the Western Narrow-mouthed Toad, *Gastrophryne olivacea* (Anura: Microhylidae), from a 58-year old Douglas County, Kansas, collection.

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Abstract. An examination of 73 museum specimens of the Western Narrow-mouthed Toad, *Gastrophryne olivacea* from a single site in northeastern Kansas in 1966 and 1967 yielded information on adult body sizes, reproductive condition, and fecundity, of a comparatively understudied member of the Great Plains amphibian fauna. A comparison of our dataset with those of two other studies derived from field research conducted in the 1950s quantified aspects of reproduction from northeastern Kansas and provided comparisons of minimum adult body sizes and potential breeding seasons of populations in southeastern Texas.

Introduction

Despite a broad geographic range (Dodd, 2023), the Western Narrow-mouthed Toad, *Gastrophryne olivacea*, has received scant attention to its reproductive biology. In Kansas, aspects of its breeding were detailed by Smith (1934), Freiberg (1951), and Fitch (1956), with only Freiberg (1951) providing clutch counts from a series taken from an artificial pond located within approximately 100 m from the University of Kansas Natural History Reservation (= Fitch Natural History Reservation), Lawrence, Douglas County, Kansas, during the spring and summer in 1950. Two collections of the Western Narrow-mouthed Toad made from a single site south of Lawrence, Kansas, in 1966 and 1967, provided us an opportunity to determine body sizes of adult males and females, distribution of ovarian stages over two months, and fecundity.

Materials and Methods

Frogs were captured by hand in April 1967 and on 22 May 1966 at a wetland located 8.5 mi. south of Lawrence, Douglas County, Kansas. According to Weatherunderground, the maximum, minimum and average air temperatures of the day at the Topeka Regional Airport Station were 88, 56, and 72.71°F, respectively. The historic averages for the aforementioned

air temperatures were 78.5, 57.4, and 67.9 °F. No precipitation data were available for any months of that year from that station, and Topeka was the closest official weather station. However, the late Henry S. and Virginia Fitch recorded daily weather conditions at the Fitch Natural History Reserve during 23 January 1952–23 December 2002. Maximum and minimum air temperatures for the day were 86 and 55°F, respectively. For the entirety of the month, mean maxima and minima of air temperatures were 78.1 and 49.2 °F, respectively. The most recent rain event was 21 May during which 0.13 in. was recorded. During 14–17 May, 0.36 in. rain fell (range = 0.04–0.15 in.), and rainfall total for the month was 1.14 in. The mean maxima and minima of air temperatures and the total volume of rainfall for all of April 1967 were 65.5°F, 44.3°F, and 7.88 in., respectively.

Specimens were stored in ETOH and deposited in the Carnegie Museum of Natural History. Snout-vent length (SVL) to nearest 0.1 mm was measured using hand calipers for each specimen. Presence of a darkened throat was used to identify sexually mature males. Suspected females were opened, their gonads staged per Meshaka (2001). Clutch size was estimated by counts of all mature ova. Ten ova randomly chosen from each clutch were mea-

sured using an ocular micrometer. All statistics were performed on Excel-----, Means are followed by one standard deviation, and statistical significance was recognized at $P < 0.05$.

Results

We examined 75 specimens collected in April 1967 ($n = 43$) and on 22 May 1966 ($n = 32$). The mean body size of mature males (mean = 29.4 ± 1.9 mm SVL; range = 25.7–32.2; $n = 24$) differed significantly ($t = -2.775$, $df = 51$, $P = 0.008$) from that of adult females (mean = 31.1 ± 2.4 ; range = 27.0–36.1 mm SVL; $n = 29$), with mean body size of adult males being 94.6% that of females. Juveniles ranged 19.8–26.2 mm SVL, the smallest of the 20 juveniles having been captured in May. An examination of Frieberg's (1951) data revealed a mean adult male body size (mean = 30.0 ± 2.2 mm; range = 25–33; $n = 15$) not significantly different (t test, $P = 0.36$) from that of our sample. Mean adult female body size of Frieberg's (1951) sample (mean = 33.1 ± 2.6 mm; range = 28–37; $n = 15$) was significantly larger ($t = 2.554$, $df = 42$, $P = 0.01$) than that of our sample. As in our sample, mean body size differed significantly ($t = 3.503$, $df = 28$, $P = 0.002$) between the sexes, with mean

body size of adult males being 90.7% that of females. Mean body sizes of adult females from our sample, smaller than that of Frieberg (1951), was significantly larger ($t = 2.185$, $df = 54$; $P = 0.03$) than that of 27 gravid females (mean = 29.8 ± 2.1 mm; range = 25–33) from Caldwell County in southeastern Texas (Henderson, 1961).

Clutch sizes of two females from our sample followed by ovum diameter in parentheses were estimated to be 835 eggs (mean = 0.90 ± 0.07 mm; range = 0.8–1.0; $n = 10$) for a 33.1 mm SVL females and 947 eggs (mean = 0.89 ± 0.07 mm; range = 0.8–1.0; $n = 10$) for a 34.8 mm SVL female. An examination of Frieberg's (1951) data revealed an estimated mean clutch size of 1084.1 eggs (± 108.7 eggs; range = 895–1217) from seven females (mean = 33.3 ± 2.3 mm; range = 29–35) for which oviducts were large and egg diameter, if noted were also mature. No significant difference ($t = -1.360$, $df = 32$, $P = 0.18$) was detected between the mean clutch size of Frieberg (1951) and that of Henderson's (1961) Texas sample (mean = 1207.4 ± 4.2 mm; range = 519–2174; $n = 27$), although variance differed significantly between the samples ($F = 0.067$, $P = 0.001$).

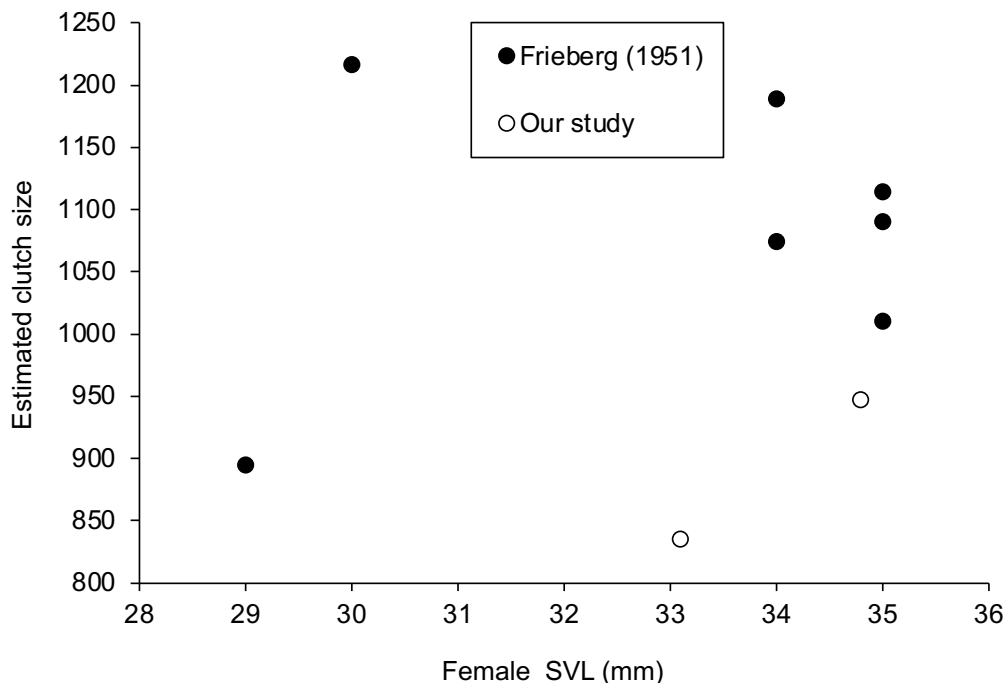


Figure 1. Relationship between female body size and clutch size of the Western Narrow-mouthed Toad, *Gastrophryne olivacea*, from our study and that of Frieberg (1951) from Lawrence, Douglas County, Kansas. See text for statistical analysis of the relationship with and without inclusion of our two data points.

No significant causative relationship was detected between female body size and clutch size of Frieberg's (1951) sample ($P = 0.63$) or of this relationship that included our two females ($P = 0.81$) (Figure 1). However, an analysis of the female body size and clutch size data presented by Henderson (1961) from Texas, determined a significant effect of female body size ($n = 27$) on the size of the clutch ($r^2 = 0.56$, $P = 0.0002$, $y = 149.37x - 3235.1$). We excluded a 30 mm female with 59 eggs. As noted by Henderson, some clasped pairs may have been in process of laying eggs when captured at breeding site.

Discussion

Our findings add to an otherwise scant body of literature regarding fecundity and clutch characteristics of this species and conform to the general pattern of its reproductive ecology. For Kansas generally, breeding occurs during April–early-September after rainstorms and in high temperatures (Smith, 1950). Near Lawrence, earliest storms over three consecutive years that elicited arrival of high numbers of males occurred on 20 June, 18 June, and 1 May (Tanner, 1950). Also near Lawrence, males began calling in the middle of May, and at least 50.8 mm of rain were needed within a few days for large choruses to form (Fitch, 1956). Rain preceded our May collection for which a day was available. Gravid females were found in April and May in our sample and June–August, the height of breeding having been July and August, by Frieberg (1951). The potentially long egg-laying season can result in two cohorts produced in the same year with metamorphosis occurring in as few as 24 days in northeastern Kansas (Fitch, 1956). The question of multiple cohorts with a season would extend to southeastern Texas, where reproduction is possible during February–August (Goldberg, 2018).

Egg counts from our study and that of Frieberg (1951) suggest a potentially much higher reproductive output than Smith's (1950) approximation of "some 600 eggs" in a clutch produced by this species in Kansas. Egg diameters of our sample were within the 0.7–1.0 mm range of Frieberg's (1951) sample. With only two clutches, we do not know if most diameters would fall within the 0.9–1.0 mm noted by Frieberg (1951). Female body size-clutch size and female body size-ovum diameter comparisons among anurans form predict-

able patterns with respect to taxa and breeding strategy (Salthe and Duellman, 1973). Taken together, our data and those of Frieberg (1951) fit closest with clutch size-body size relationship of the Eastern Narrow-mouthed Toad, *G. carolinensis*, and the lower range of pond breeding species (Salthe and Duellman, 1973). Ovum diameter-female body size of our combined sample fell within the range seen in toads of the genus *Bufo* and fell close to but below that of pond breeding species (Salthe and Duellman, 1973). Our small sample size precludes determination of any effect of female body size on clutch size.

Tadpoles in northeastern Kansas having metamorphosed in June could approach sexual maturity that fall and breed for the first time the following year (Fitch, 1956). Minimum body size at sexual maturity of males (25–25.7 mm) of our study and that of Frieberg (1951) was similar to 26 mm reported for males from Texas (Goldberg, 2018). However, minimum body size at sexual maturity of females (27–28 mm) of our study and that of Frieberg (1951) were larger than 24 mm (Goldberg, 2018) or 25 mm (Henderson, 1961) for females from Texas.

Our preliminary work quantified high fecundity of this species in northeastern Kansas. Tentatively, it appears as though minimum and mean body size of mature females are larger in populations near the northern edge of its geographic range. We note that our data and those of Frieberg (1951) and Henderson (1961) were collected over a short period of time and between 38 and 74 years ago. Henderson's (1961) collection was made in 1956, and Frieberg's (1951) collection was made in 1950. Short term perturbations and long term trends associated with climate change place these findings in a unique light if, and hopefully when, compared to contemporary studies that examine reproductive ecology in this species. Specific to our own dataset, the wetlands south of Lawrence, the site of this collection, were largely destroyed in the mid- to late-1970s via construction of a dam and ditches. The status of the erstwhile thriving population of this species remains unknown.

Acknowledgments

Projects such as our study are not possible without care and collection of specimens. To that end, thanks are due to staff at the Carnegie Museum of Natural History for approving

and processing this loan. The former two authors are grateful for Russ Hall's having made this collection and for his willingness to participate in this study nearly 60 years later.

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Short Communications and Notes

Even young adults of the Green Iguana, *Iguana iguana*, are not safe from the depredations of the Raccoon, *Procyon lotor*, in a southern Florida park.

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The Green Iguana, *Iguana iguana*, in Florida was first reported in 1966, where one of two concentrations of the species was associated with a release of a few hundred individual associated with the pet trade (King and Krakauer, 1966). This species remains a staple in the pet trade and is highly successful in much of southern Florida, where it is closely associated with water (Meshaka, 2011; Meshaka et al., 2022).

This species is prey to a number of predators in southern Florida (see review by Meshaka, 2011; Williams et al., 2022), including raccoons, *Procyon lotor*, whose removal resulted in a population explosion of this lizard from previously small populations of generally large individuals (Smith et al., 2006; Meshaka et al., 2007). The very largest lizards can be safe as seen in Figure 1 of Smith et al. (2006); how-

ever, as we present below, even young adults are not immune to predation by the raccoon.



Figure 1. A young adult Green Iguana, *Iguana iguana*, captured and killed by a Raccoon, *Procyon lotor*, at Bill Baggs Cape Florida State Park, Miami-Dade County, Florida, 12 November 2022. Photographed by A. Bernhardt.

During a visit to Bill Baggs Cape Florida State Park on Key Biscayne, Miami-Dade County, Florida, on 12 November 2022, a raccoon was observed running out of the wooded area near the beach access trail at c.a., 1100 hrs. From there, it ran to a Sabal Palm, *Sabal palmetto*, and climbed the trunk, whereupon an iguana jumped from the top of the tree (~5 m up), landed on the ground, and took off running. The raccoon chased down the iguana, jumped on its back, and delivered several “crunching” bites to the back of the head and neck. With the iguana subdued, the raccoon then began to drag its prey back to the wooded area near the dunes (Figure 1). Compared with monthly body size distributions at the park (Meshaka et al., 2007), the body size of the depredated iguana is suggestive of an adult, at least 24 cm snout-vent length if a female. Furthermore, examination of the jowls and dorsal spine development were suggestive of it being a male. If so, this male would be larger than the minimum size of 18.0 cm SVL at 16–17 months of age for a male (Meshaka et al., 2007). This observation corroborates risk of predation by raccoons on sexually mature Green Iguanas, a factor that could accelerate the rate of population decline in raccoon-rich sites.

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Herpetofaunal assemblage at a former rock quarry in the Flint Hills of Kansas.

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Collecting inventories of species in areas not surveyed can be beneficial, such as detecting species range shifts (Tingley & Beissinger, 2009) and acquiring a baseline of data in order to detect shifts in abundances in the future (Moussy et al., 2022). 54 reptile and amphibian species have been documented in Butler County, Kansas, so we would expect to see at least a small representation of this community within the study site surveyed.

The rock quarry (10 acres) is located in the Northwest corner of Butler County, Kansas Flint Hills. The quarry was in production from the 1950’s to the 1970’s. The quarry consists of a mine pit that is now a pond with interspersed

Table 1. Reptile and amphibian species found and their corresponding abundances

Species	No. Observed
<i>Acris blanchardi</i>	35
<i>Aspidoscelis sexlineata</i>	1
<i>Diadophis punctatus</i>	50
<i>Gastrophryne olivacea</i>	1
<i>Nerodia erythrogaster</i>	1
<i>Nerodia rhombifer</i>	1
<i>Nerodia sp.</i>	2
<i>Pantherophis obsoletus</i>	1
<i>Plestiodon obsoletus</i>	1
<i>Thamnophis sirtalis</i>	2

limestone rocks nearby. Surrounding the pond is predominantly Eastern Red Cedar (*Juniperus virginiana*) with small patches of grassland throughout. Bordering the entire perimeter of the quarry site is row crop agriculture with a county road south of the site.

Survey methods consisted of six surveyors opportunistically flipping cover such as rocks and logs for three hours on April 30th, 2023. We also walked along the embankment of the pond to visually observe aquatic species.

We encountered nine species overall, including two frog, two lizard, and five snake species with a total of 95 individuals (Table 1). Most of the observations (89%) consisted of *Acris blanchardi* and *Diadophis punctatus*. This is indeed a small representation of the herpetofauna that could occur in the area. But considering the site being a small, fragmented patch within an agricultural landscape and being disturbed historically, these results are not surprising.

I would like to thank John Torline for reaching out to the Kansas Herpetological Society

and allowing us to survey the property. I extend my thanks to Shawn Hinderliter, Felix Harrington, Greg Elder, Carolyn Schwab, Keven Hiebert, and Brad Anderson for assisting with the survey.

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Common Gartersnake roadkill scavenging.

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The Common Gartersnake, *Thamnophis sirtalis*, is a dietary generalist feeding on a wide variety of live prey including amphibians, birds, fish, invertebrates, mammals, snakes, as well as carrion (Ernst and Ernst, 2003). Scavenging in the Common Gartersnake has been recorded on a variety of food items including birds (Ruthven, 1908; Sajdak and Sajdak, 1999; Feldman and Wilkinson, 2000; Gray, 2002; Casper et al., 2015), mammals (Casper et al., 2015), and anurans (Ruthven, 1908; Brown, 1979; Markezich, 2010; Casper et al., 2015; VanGilder and Riffle, 2019). Herein I report on the observation of the Common Gartersnake scavenging on another species of anuran. At 0214 h on 26 August 2023, I observed an adult Common Gartersnake scavenging a Woodhouse's Toad, *Anaxyrus woodhousii*, that recently had been killed by a motor vehicle on Nebraska Highway 4 near Upland, Franklin County, Nebraska (Figure 1; 40.292°N, 98.906°W; WGS84). Before and during the observation, heavy rain fell associated with a thunderstorm in the region. I

removed the snake from the roadway to prevent it from being killed where it disgorged the toad. Previously, Common Gartersnakes have



Figure 1. An adult Common Gartersnake, *Thamnophis sirtalis*, scavenging a road-killed Woodhouse's Toad, *Anaxyrus woodhousii*, in Franklin County, Nebraska.

been recorded scavenging road-killed anurans including the Southern Toad, *Anaxyrus terrestris* (Markezich, 2010), Northern Leopard Frog, *Lithobates pipiens* (Markezich, 2010; Casper et al., 2015), and unspecified frogs (Brown, 1979). Use of road-killed anurans as a source of food may be of concern, as Common Gartersnakes can experience high rates of mortality when crossing roadways (Krivda, 1993). Any behavior that increases time spent on roadways would likely increase mortality rates. Scavenging on roads by other *Thamnophis* species (Watson, 2007; Tye and Geluso, 2019) might indicate a common type of food resource.

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Observation of a Coachwhip (*Masticophis flagellum*) depredating three fledgling Eastern Phoebes (*Sayornis phoebe*).

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The Coachwhip (*Masticophis flagellum*), which has a broad distribution throughout North America, are dietary generalists. They are known to consume birds, reptiles, amphibians, insects, and mammals, as well as the eggs of both birds and reptiles. Predation on nests is the leading cause of nest failure for many bird species, including the Eastern Phoebe, with snakes being one of the most common predators (DeGregorio et al., 2014; Hill & Gates, 1988; Weeks, 1979). In a study using video cameras on bird nests, Coachwhips were observed consuming unspecified species of nestlings, but they contributed less frequently to nest failure than other species of snakes (DeGregorio et al., 2014). Coachwhips have been observed preying on the nestlings of Abert's Towhees (*Melospiza aberti*)



Figure 1. One of the fledgling Eastern Phoebes, *Sayornis phoebe*, presumed to have been eaten.

erti), Black-Capped Vireos (*Vireo atricapilla*), and Golden-Cheeked Warblers (*Setophaga chrysoparia*; Finch, 1981; Stake et al., 2005). When coachwhips prey on nests, it is common for them to consume the entire nest contents in the same visit (Stake et al., 2005), however, sometimes, they will return to a nest repeatedly to consume nestlings (Finch, 1981).

On June 10th, 2021, in Barber County, Kansas, on the corner of Cottage Creek Rd and Aetna Rd (37.086420°N, 98.963955°W), we noticed an Eastern Phoebe nesting in the rafters of an open shelter next to a yellow house. The female had four chicks, one of which was found dead in the nest. Around 2pm, the three living chicks were observed fledging. They were sitting on the cement surface of the shelter, and we watched the parent feed them several times.



Figure 2. The large adult Coachwhip, *Masticophis flagellum*, presumed to have eaten the three fledglings.

The weather that day was hot (around 29.2 °C) and humid (70% relative humidity). The sky was mostly clear. Later that same day, around 8pm, a large Coachwhip (approximately 5 feet) was found under the open shelter where the fledglings had been. The Coachwhip moved from the cement pad and began periscoping in the yard of the house. The snake had three lumps in its body and moved slowly when approached. The three fledglings were nowhere in sight, and the adult Eastern Phoebe was observed with food in its beak, sitting on the back of a chair, chirping in a distressed manner.

Although we did not see the Coachwhip explicitly consuming the fledglings, we assume that was the cause of the lumps in the snake's body and the missing chicks. To the best of our knowledge, this is the first record of a Coachwhip consuming Eastern Phoebe fledglings.

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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 digitally as submissions warrant, 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.

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Societal Awards, Grants, and Recognitions

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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. Research results (in whole or in part) must be submitted for publication in *Collinsorum*.

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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.

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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. Research results (in whole or part) must be submitted for publication in *Collinsorum*.

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 an amphibian, reptile, or turtle representing a species native to Kansas. 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.