NEW HERPETOLOGICAL RECORDS FROM KANSAS

Eric M. Rundquist

Museum of Natural History, University of Kansas Lawrence, Kansas 66045

Ed Stegall, David Grow, and Peter Gray Sedgwick County Zoo Wichita, Kansas 67212

ABSTRACT

The second known breeding site in Kansas of Notophthalmus viridescens louisianensis (Wolterstorff) is recorded from Cherokee County; Pseudacris s. streckeri Wright and Wright, captured in Harper County is a new state record for this chorus frog; an adult male Eumeces septentrionalis obtusirostris Bocourt, taken in Clark County represents the eighth known occurrence of this skink in Kansas, and is an extension of range; an unusual aggregation of the New Mexican blind snake, Leptotyphlops dulcis dissecta Cope, os reported from Clark Countyp and the third authenicated record of the western cottonmouth, Agkistrodon piscivorus leucostoma Troost is represented by an adult male taken in Montgomery County. Trans. Kansas Acad. Sci., Vol. 81:1.

Extensive field work by various researchers in Kansas in 1977 resulted in several new herpetological discoveries for the state. Some of the more notable records are reported with comments as follows:

Notophthalmus viridescens louisianensis (Wolterstorff)

On 21 July 1977 four larval central newts (KU 174691) and one eft-stage subadult were collected at a small farm pond 7.2 km S and 1.4 km E of Galena, Cherokee County, Kansas by Jan P. Caldwell (formerly of the State Biological Survey of Kansas). A more detailed habitat description of the collection site is found in another paper by one of us (Rundquist, 1977).

These records establish the second known breeding site for *N. v. louisianensis* in the state, and the second locality in Cherokee County (Ashton, 1974).

Pseudacris s. streckeri Wright and Wright

Two specimens of Strecker's chorus frog (KU 174370-371) (Fig. 1) were taken at 2 km W and 0.9 km S of Anthony, Harper County, Kansas, on 30 April 1977 by three of us (ES, DG, and PG) and Ed Byrne. The specimens were taken from a breeding chorus at a small pond near Bluff Creek. Additional information on the collection is offered by Stegall (1977).

Additional field work by EMR, Kelly Irwin, and Richard Plumlee

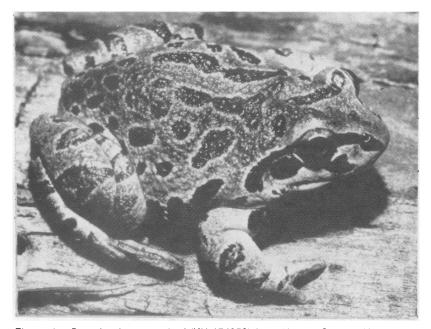


Figure 1. Pseudacris s. streckeri (KU 174370) from Harper County, Kansas.

Photograph by Joseph Collins,

(members of the Kansas Herpetological Society, KHS) revealed another chorus of *P. s. streckeri* at a pond 4.8 km W and 2.4 km S of Anthony, Harper County, Kansas, on 13 May 1977. *Pseudacris clarki, Acris crepitans, Rana blairi, Rana catesbiana, Bufo cognatus,* and *Bufo woodhousei* were also in chorus at the same site. Time was 2300 hrs with ambient temperature at *ca.* 68°F, overcast skies, high humidity, and a moderate SW wind.

The presence of *P. s. streckeri* in the Harper County area was expected (Collins, 1974). This is the first addition, based on actual specimens, to the Kansas herpetofauna since 1967 (Ireland, 1970).

Eumeces septentrionalis obtusirostris Bocourt

An adult male southern prairie skink (KU 176110) (Fig. 2) was collected on 14 May 1977 by Kelly Irwin at Clark County State Lake, Clark County, Kansas. The specimen was taken from under a flat limestone rock in yellow Permian soil in a grassy (Andropogon-Bouteloua) canyon on the east side of the lake. Time was ca. 1100 hrs with an air temperature of ca. 68°F under partly cloudy skies. Other herpetological species seen or taken in the immediate area were Crotaphytus collaris, Sceloporus undulatus, Cnemidophorus sexlineatus, Leptotyphlops dulcis, Diadophis punctatus, and Sonora episcopa.

KU 176110 is the eighth known specimen of this subspecies from

Kansas, and is a range extension ca. 69 km W and ca. 46 km N of the nearest known locality in Comanche County, Kansas. The collection of this specimen further confirms the presence of the southern prairie skink throughout the Red Hills province of Kansas, as defined by Collins (1974).

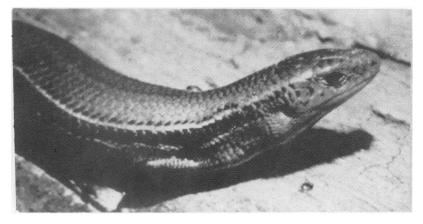


Figure 2. Eumeces septentrionalis obtusirostris (KU 176110), adult male, from Clark County, Kansas.

Photograph by Joseph Collins.

Leptotyphlops dulcis dissecta Cope

On 14 May 1977 an unusual aggregation of New Mexican blind snakes was observed by KHS members Richard Plumlee, Kelly Irwin, and Larry Miller at a locality 11.8 km S Clark County State Lake, Clark County, Kansas. A series of 19 *L. d. dissecta* was collected along a 20 m length of south-facing hillside. Eleven specimens were found beneath a thin, flat limestone rock (ca. 25 cm X 45 cm) partially buried beneath pocket gopher (Geomys bursarius) tailings in yellow Permian soil. The other 8 specimens were found singly or in pairs (2) under similar limestone rocks just below the brow of the hill. Two voucher specimens were retained (KU 174727-728).

It is unknown whether or not the above instance was a breeding aggregation. McCoy (1960) cites an almost identical occurrence in Payne County, Oklahoma, at virtually the same date and month. He was unable to discover the reason for the aggregation. Whatever the motivation for this gathering, it further documents social behavior in *Leptotyphlops dulcis*, a prrly understood phenomenon of snake ethology (Dundee and Miller, 1968; Hibbard, 1964).

Agkistrodon piscivorus leucostoma Toost

On 10 September 1977 an adult male western cottonmouth (Fig. 3) was taken 1.6 km W and 1.6 km N of Coffeyville, Montgomery County,

Kansas, by Kelly Irwin and J. D. Jennings (KHS members). The specimen was found beneath a round, imbedded limestone rock *ca.* 1.5 m from the water's edge of the Verdigris River. Time was approximately 2300 hrs on a cloudy night with ambient temperatures near 65°F. Although evidently mature, the specimen is small (< 50 cm total length) and was somewhat emaciated at the time of capture.

The specimen is the third known from Kansas and further confirms the existence of this venomous snake in the state. Specimens have been taken only in the Verdigris River (Collins, 1977) and Neosho River systems (Hall and Smith, 1947) in Kansas. The presence of this species in the Verdigris system was unknown until 1976 when one specimen was collected near Independence, Kansas.

It is interesting to note that all three specimens from Kansas were emaciated and stunted when collected and that all have been taken on high-banked, fast-flowing rivers, less than optimal habitat for this species (Collins, 1977). This indicates that, in southeastern Kansas, A. p. leucostoma is probably existing at the limits of its environmental requirements and that these specimens are probably representative of an extremely localized or low-density population.

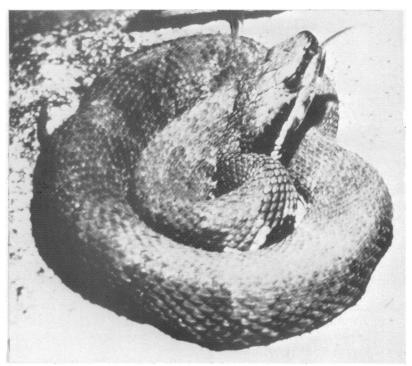


Figure 3. Adult male Agkistrodon piscivorus leucostoma from Montgomery County, Kansas.

Photograph by Joseph Collins.

The latest specimen is currently on exhibit (alive) at the University of Kansas Museum of Natural History and will eventually be deposited in the collection at KU.

REFERENCES

The authors would like to thank Kelly Irwin, Richard Plumlee,a nd Ed Byrne for their assistance in the field. In addition, Joseph T. Collins criticized the manuscript and kindly gave permission for the use of his photographs. Finally, we thank William E. Duellman for criticizing the manuscript and allowing us to examine specimens in the Division of Herpetology, Museum of Natural History, University of Kansas (KU).

LITERATURE CITED

- Ashton, R. E. 1974. Unusual flora and fauna in Kansas: The Central Newt (Notophthalmus viridescens Rafinesque). Kansas Assoc. Biol. Teachers Newsl., 15(3): 2pp.
- Collins, J. T. 1974. Amphibians and reptiles in Kansas. Univ. Kansas Mus. Nat. Hist. Pub. Ed. Ser., 1: 1-283.
- ______ 1977. Rediscovery of the western cottonmouth, *Agkistrodon piscivorus leucostoma*, in southeastern Kansas. Trans. Kansas Acad. Sci., 80(1-2): 71-74.
- Dundee, H. A. and M. C. Miller. 1968. Aggregative behavior and habitat conditioning by the prairie ringneck snake, *Diadophis punctatus arnyi*. Tulane Stud. Zool. Bot., 15(2): 41-58..
- Hall, H. H. and H. M. Smith. 1947. Selected records of reptiles and amphibians from southeastern Kansas. Trans. Kansas Acad. Sci.,49(4):447-454
- Hibbard, C. W. 1964. A brooding colony of the blind snake, *Leptotyphlops dulcis dissecta* Cope. Copeia, 1964(1): 222.
- Ireland, P. H. 1970. Rediscovery of the grey-bellied salamander, *Eurycea multiplicata griseogaster* Moore and Hughes, in southeastern Kansas. Southwest. Nat., 14(3): 366.
- McCoy, C. J. 1960. An unusually large aggregation of *Leptotyphlops*. Copeia, 1960(4): 368.
- Rundquist, E. M. 1977. The spring peeper, *Hyla crucifer* Wied, in Kansas. Trans. Kansas Acad. Sci., 80 (3-4): 155-158.
- Stegall, E. 1977. *Pseudacris streckeri* found in Kansas. Kansas Herp. Soc. Newsl., 21: 11-13.