

The Amphibians and Reptiles of the University of Oklahoma Biological Station Area in South Central Oklahoma

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Since the establishment of the University of Oklahoma Biological Station, Marshall County, in 1950, sufficient data have been accumulated to present a list of the amphibians and reptiles of the region.

The Biological Station is located on the north shore of the Red River arm of Lake Texoma at the mouth of Buucombe Creek, two miles east of Willis. Lake Texoma is an impounded lake of about 93,000 surface acres. The biomes represented in this area include the tall grass prairie and black jack-post-oak forest with scattered limestone and granite outcroppings and cultivated fields. Both intermittent and permanently flowing streams are present and other bodies of water include reservoirs and farm ponds.

The region concerned in this paper consist of the four Oklahoma counties bordering the north shore of Lake Texoma; these are Marshall County, bounded by Love County to the west, Johnston County to the north, and Bryan County to the east.

Previous study of the herpetology of this area has been little as compared to many other sections of the state. Some information on distribution, however, has been gained from the published records of A. N. Bragg (amphibia), W. H. McCarley (Bryan County), and the Master of Science thesis of R. G. Webb (reptiles).

This paper records *new* county records for 8 species. All but 12 of the 68 forms recorded have been observed and collected by the author and his classes in Natural History of the Vertebrates and Herpetology at the Biological Station since 1952. Specimens have been placed in the teaching collections of the Biological Station and in the reptile and amphibian collections of the Division of Zoology, University of Oklahoma Museum at Norman.

The systematic arrangement of forms presented in this paper is consistent with the most recent checklist on amphibians and reptiles (32).

To designate the abundance of the forms for the area here concerned, as indicated by the author's experience and interpretation of the literature, five categories are used. *Rare*; only one or two records. *Uncommon*; observed very infrequently, i. e., once or twice a summer, and usually restricted to edaphic conditions. *Common*; frequently recorded, but observations limited by edaphic conditions or by certain weather conditions. *Abundant*; numerous records and frequently observed in many habitats. *Very abundant*; very numerous records and observed very often in many habitats throughout the summer.

Where possible, reference has been made to the authority for county records of a species. The bibliography includes the literature cited plus general publications which are pertinent to the area and specific herpetological papers referring to the area.

Research problems at the University of Oklahoma Biological Station are diverse, but whether in parasitology, entomology, ecology, or even botany, reference relative to a species presence or identification is often essential. It is hoped that this paper will be of value in this respect. For those working specifically with the fauna and for vertebrate zoology classes in particular, this list offers a summary of the forms known to be present.

Class Amphibia

Order Caudata

Sirenidae

- Stren intermedia nettingi* Goin Texas dwarf siren
Rare. Bryan County (28).

Ambystomidae

- Ambystoma texanum* Matthes Texas salamander
Uncommon. Marshall (18) and Bryan (3) Counties.

Salamandridae

- Desmictylus virideacens louisianensis* Wolterstorff Variable newt
Rare. Bryan County (28).

Order Salientia

Pelobatidae

- Scaphiopus holbrookii hurteri* Strecker Hurter's spadefoot
Common. Bryan (3) (7), Johnston (9), and Marshall (18) Counties.
Scaphiopus bombifrons Cope Central plains spadefoot
Common. Love (13), Marshall (18), and Bryan Counties.

Bufonidae

- Bufo cognatus* Say Great Plains toad
Rare. Johnston County (10).
Bufo terrestris charlesmithi Bragg Dwarf American toad
Common. Bryan (16), Johnston, Love and Marshall Counties (11) (8).
Bufo woodhousei woodhousei Girard Woodhouse's toad
Very abundant. Bryan (11) (3), Johnston (11), Love (5), and Marshall (11) Counties.

Hylidae

- Acris gryllus blanchardi* Harper Blanchard's cricket frog
Very abundant. Bryan (3), Johnston (13), Love and Marshall Counties.
Hyla versicolor versicolor Le Conte Gray tree frog
Common. Reported here for Marshall County, 3 miles west of the University of Oklahoma Biological Station, July 1962 and June, 1965.
Love (6) and Johnston Counties.
Pseudacris clarki Baird Spotted chorus frog
Common. Bryan (3), Johnston, Love and Marshall Counties (6).
Pseudacris nigrita Le Conte Chorus frog
Rare. Bryan (3). Subspecies in this area are not adequately determined as to *triseriata* or *feriarum*.
Pseudacris streckeri Wright and Wright Strecker's chorus frog
Uncommon. Bryan (3), Johnston, Love and Marshall Counties.

Microhylidae

- Microhyla carolinensis olivacea* Hallowell Great Plains narrow-mouthed toad
Common. Bryan (3), Johnston (10), Marshall (18), (20) and Love Counties.

Ranidae

- Rana catesbeiana* Shaw Bullfrog
Common. Bryan (3) (13), Johnston (13), Love (12), and Marshall (18) Counties.

Rana pipiens berlandieri Baird Rio Grande leopard frog
Common. Bryan (3) (13), Johnston, Love and Marshall Counties.

Class Reptilia
Order Chelonia
Chelydridae

Chelydra serpentina serpentina Linnaeus Common snapping turtle
Common. Bryan, Johnston and Marshall Counties (41).

Macrochelys temminckii Troost Alligator snapping turtle
Rare. Johnston and Marshall Counties (25). A recent note (37) seeks to give *Macrochelymys* generic priority.

Kinosternidae

Sternotherus carinatus carinatus Gray Mississippi musk turtle
Rare. Bryan (41) and Johnston (18) Counties.

Kinosternon flavescens flavescens Agassiz Yellow mud turtle
Uncommon. Love County (41).

Kinosternon subrubrum hippocrepis Gray Mississippi mud turtle
Common. Bryan (3), Johnston (24) (41), and Marshall (41) Counties.

Emydidae

Terrapene carolina triunguis Agassiz Three-toed box turtle
Abundant. Bryan (3), Johnston (18), and Marshall (41) Counties.

Terrapene ornata ornata Agassiz Ornate box turtle
Abundant. Reported here for Love County, 1 mile west of county line on Highway 190. Bryan (3) (41), Johnston (18), and Marshall (41) Counties.

Graptemys pseudogeographica ouachitensis Cagle Ouachita false-map turtle
Abundant. Johnston (21) and Marshall (17) Counties.

Pseudemys floridana hoyi Agassiz Saw-toothed slider
Uncommon. Marshall County (41).

Pseudemys scripta elegans Wied Elegant slider (Red-eared turtle)
Very abundant. Bryan (41), Johnston (41), Love (16) and Marshall Counties.

Deirochelys reticularia Latreille Chicken turtle
Rare. Marshall County (18).

Trionychidae

Trionyx ferox emoryi Agassiz Emory's soft-shelled turtle
Abundant. Marshall County (41).

Trionyx muticus LeSueur Smooth soft-shelled turtle
Common. Marshall and Love Counties (41).

Order Sauria

Iguanidae

Crotophytus collaris collaris Say Eastern collared lizard (Mountain boomer)
Uncommon. Johnston (41) and Love (18) Counties.

Sceloporus olivaceus Smith Texas spiny lizard
Rare. Love County (41).

Sceloporus undulatus Latreille Fence lizard
Very abundant. The area under consideration is one of overlap for two described races of this species, *S. u. hyacinthinus* (Northern fence lizard) as the eastern form and *S. u. consobrinus* (Southern fence lizard) as the southwestern form. Intergrades are reported from Love and

Marshall Counties (41). *S. u. hyacinthinus* reported for Bryan County (3) (41). *S. u. consobrinus* reported for Love County (38). Specimens taken near the Biological Station in Marshall County appear to be intergrades.

Phrynosoma cornutum Harlan Texas horned lizard
Common. Bryan (3) and Marshall (41) Counties.

Anguillidae

Ophisaurus attenuatus attenuatus Baird Western slender glass snake
Rare. Reported here for Marshall County from specimen collected by R. G. Webb, June 8, 1952, 10 miles north of the Biological Station. Bryan (3) and Johnston (18) Counties.

Telidae

Cnemidophorus sacki gularis Baird and Girard Eastern spotted race runner (Blue-bellied race runner)
Uncommon. Johnston (41) and Love (15) (41) Counties.

Cnemidophorus sczlineatus Linnaeus Six-lined race runner
Very abundant. Reported here for Johnston County, 5 miles north of Milburn and 1 mile south of Ravia, July 26, 1954. Bryan (3) (41), Love (15) (38) (41), and Marshall (41) Counties.

Scincellidae

Lygosoma laterale Say Little brown skink
Abundant. Bryan (3) (41), Love and Marshall Counties (41).

Eumeces fasciatus Linnaeus Five-lined skink
Rare. Bryan County (3).

Eumeces laticeps Schnelder Greater five-lined skink
Rare. Reported here for Johnston County, 2½ miles north of Milburn, July 30, 1955. Bryan (3) and Love (41) Counties.

Eumeces anthracinus pluvialis Cope Southern coal skink
Rare. Bryan County (41).

Eumeces septentrionalis obtusirostris Bocourt Southern prairie skink
Uncommon. Love (41) and Marshall (18) Counties.

Order Serpentes

Leptotyphlopidae

Leptotyphlops dulcis dulcis Baird and Girard Texas blind snake
Rare. Marshall County (41). Webb (41) also reports an intergrade of *L. d. dulcis* and *L. dulcis dissectus* Cope (New Mexico blind snake) for this area.

Colubridae

Natrix erythrogaster transversa Hallowell Blotched water snake
Common. Bryan (3), Love (20) and Marshall (41) Counties.

Natrix rhombifera rhombifera Hallowell Diamond-backed water snake
Common. Bryan (3), Love, and Marshall Counties (41).

Natrix sipedon sipedon Linnaeus Northern water snake
Uncommon. Bryan (3) (41) and Johnston (41) Counties.

Natrix sipedon confluenta Blanchard Mississippi River water snake
Uncommon. Bryan (3) (41). This is a possible area of intergradation for this and the preceding form.

Storeria dekayi Holbrook Dekay's snake
Uncommon. This area is in a zone of overlap for two races of this snake, and is near the western limit of the range of the eastern (*S. d. wrightorum*) form. *S. d. ssp.*; Johnston County (18). *S. d. wrightorum*

- Trapido* (Midland brown snake); Bryan County (41). *S. d. texana*
Trapido (Texas brown snake); Bryan and Marshall Counties (41).
- Thamnophis sauritus proximus* Say Western ribbon snake
 Common. Johnston (18), Bryan, Love and Marshall Counties (41).
- Thamnophis sirtalis parietalis* Say Red-sided garter snake
 Uncommon. Reported *here* for Marshall County, 1 mile east of Powell,
 June 22, 1955; 2 miles north of Willis, June 24, 1955; and 3 miles south-
 southwest of Madill, June 29, 1955. Reported *here* for Johnston County,
 Ballard Park, June 29, 1955. Bryan County (41).
- Tropidoclonion lineatum* Hallowell Lined snake
 Rare. Bryan County (3) (41).
- Haldea striatula* Linnaeus Southern ground snake
 Common. Love (38) (41) and Marshall (41) Counties.
- Heterodon platyrhinos platyrhinos* Latreille Eastern hog-nosed snake
 Common. Bryan (41) (3), Johnston, Love and Marshall Counties (41).
- Diadophis punctatus arnyi* Kennicott Prairie ring-necked snake
 Rare. Reported *here* for Marshall County, April 30, 1954, near the Bio-
 logical Station.
- Coluber constrictor flaviventris* Say Yellow-bellied racer
 Abundant. Bryan (3) (41), Johnston, Love and Marshall Counties (41).
- Masticophis flagellum flagellum* Shaw Eastern coachwhip
 Abundant. Bryan (3) (41), Love (29) and Marshall (41) Counties.
 The range of *M. f. testaceus* Say (Western coachwhip) approaches very
 close from the west. Intergrades can be expected.
- Ophedryus aestivus* Linnaeus Rough green snake
 Common. Johnston (18), Bryan and Marshall Counties (41).
- Elaphe obsoleta (obsoleta?)* Say Pilot black snake (Black chicken snake)
 Abundant. Bryan (3) (41), Johnston and Marshall Counties (41).
 The relegation to the race *obsoleta* is questionable and further study is
 needed to make clear the proper race or relationships.
- Pituophis catenifer sayi* Schlegel Bull snake
 Rare. Marshall County (41).
- Lampropeltis calligaster calligaster* Harlan Yellow-bellied king snake
 Uncommon. Marshall (18), Bryan and Love Counties (41).
- Lampropeltis getulus holbrooki* Stejneger Speckled king snake
 Common. Johnston (18), Bryan and Marshall Counties (41).
- Sonora episcopa episcopa* Kennicott Great Plains ground snake
 Common. Johnston, Love and Marshall Counties (41).
- Tantilla gracilis gracilis* Baird and Girard Slender flat-headed snake
 Common. Bryan and Marshall Counties. (41).

Crotalidae

- Ancistrodon contortrix* Linnaeus Copperhead
 Common. This area is in the zone of junction of *A. c. laticinctus* Gloyd
 and Conant (Broad-banded copperhead) and *A. c. mokasen* Daudin
 (Northern copperhead) and specimens collected near the Biological
 Station show intergrading characters. *A. c. laticinctus*; Johnston, Love,
 and Marshall Counties. (41) *A. c. mokasen*; Bryan County (3).
- Ancistrodon piscivorus leucostoma* Troost Western cottonmouth (Western
 water moccasin)
 Uncommon. Bryan (3), Johnston and Marshall Counties (18).
- Riistrurus millarius streckeri* Gloyd Western pigmy rattlesnake
 Rare. Bryan (3) (41) and Marshall (41) Counties.
- Crotalus horridus atricaudatus* Latreille Canebrake rattlesnake
 Common. Bryan (3) (41) and Marshall (41) Counties.

The semicircle of counties surrounding this area includes records of 25 additional forms, some of which are not likely to be found in the area covered, but others which may appear at a future date. These counties, from west to east, are Jefferson, Carter, Murray, Pontotoc, Coal, Atoka, and Choctaw. The following species have been recorded for these counties. (Capital letter designates the direction from which the species approaches the area concerned.)

Caudata

- Ambystoma maculatum*—E
Ambystoma opacum—E
Desmognathus fuscus brimleyorum—E
Eurycea multiplicata—E

Sallientia

- Scaphiopus couchi*—W
Bufo compactilis spectosus—W
Bufo debilis—W
Bufo punctatus—NW
Bufo woodhousei woodhousei x velatus—E
Microhyla c. carolinensis—E
Rana a. areolata—E & N
Rana clamitans—E & NE
Hyla cinerea—E

Chelonla

- Sternotherus odoratus*—N & NW

Sauria

- Anolis carolinensis*—E
Eumeces obsoletus—NW

Serpentes

- Leptotyphlops dulcis dissectus*—S & W
Natrix grahami—E
Haldea valeriac—W & E
Heterodon nasicus—W
Masticophis flagellum testaceus—W
Lampropeltis dollata amaura—E
Tantilla gracilis hallowellii—NW
Crotalus atrox—NW

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