

XVI. A REPORT ON THE AMPHIBIANS AND REPTILES OF OKLAHOMA.*

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Last year a preliminary list of the snakes of Oklahoma was published.¹ This included those specimens with definite localities, which were at that time in the Field Museum, the U. S. National Museum, and the University of Oklahoma Museum of Zoology. The report this year is based upon all amphibians and reptiles with definite localities that are known to be in collections of the following museums: Academy of Natural Sciences of Philadelphia, American Museum of National History, Field Museum of Natural History, U. S. National Museum, the University of Michigan Museum of Zoology, and the University of Oklahoma Museum of Zoology (U. O. M. Z). No specimens from Oklahoma are in the collections of the Museum of Comparative Zoology or of the California Academy of Sciences.

It is to be expected that any state university museum of zoology would have the largest collection from its own state, and of course this is the case in Oklahoma. When numbers are not designated in this list the specimens are in the University of Oklahoma Museum of Zoology. Our entire taxonomic knowledge of the herpetological fauna of Oklahoma at this time is indicated in this list. A few species of snakes were reported in the preliminary list of 1924, of which no further specimens have been secured; these species are included in the present report in order to make the list of species from the State complete to date and are here marked with an asterisk.

It has been possible to spend only a very small part of two years in an attempt to make a representative state collection. It will be noted of course that most of the specimens are from only a few counties, mostly those in the southeast and east central part of the State. No collecting has been done in the southwestern part of the State except in Comanche County. None has been done in the panhandle or even in the old "Neutral Strip" (those counties from Kay and Noble west to the 100th meridian).

Specimens from old collections labeled "Neutral Strip" are

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not listed here unless they constitute the sole record for a species. In general only those specimens are recorded which have locality data at least as definite as the county.

The only careful collecting that has been done was during June and July of 1925 when the Museum sent an expedition into the field. This party consisted of three students,—J. E. Gilliam, G. S. Caughron, and Jack R. Caughron—Mrs. Ortenburger, and the author. All members of the party are responsible for the collections in all of the vertebrate classes. In all, some 115 lots of amphibians and some 350 lots of reptiles were collected. Practically all of these were from the following counties: Le Flore, McCurtain, Pushmataha, Choctaw, Love, and Comanche Counties, with the great majority of the specimens from the first three named.

Last year the Museum was fortunate in obtaining a good collection from Okmulgee County made by a student, Miss E. R. Force of Okmulgee.

We have, then, representative collections so far from McCurtain, Le Flore, Pushmataha, and Okmulgee Counties. There are also in the Museum small, but most instructive collections from Creek, Tulsa, Choctaw, Carter, Love, Comanche, and Cleveland Counties. Primarily from other museums we have a few records from Woods, Muskogee, Haskell, and Caddo Counties. Unfortunately these are all the collections that are known. It will be noticed as stated above that all of the fairly representative collections are from either the southeastern part of the state or the central eastern portion. In other words, collections worthy of the name are available from only five per cent of the 77 counties of the State. It is evident, therefore, that the list is necessarily very incomplete, but it seems worth while to record it due to the paucity of published information concerning amphibians and reptiles of Oklahoma. To the herpetologist the list will speak for itself, but perhaps some of the more interesting forms should be mentioned.

Of note among the amphibians are: *Desmognathus fuscus brimleyorum*, which has previously been recorded only from Arkansas; *Triturus viridescens louisianae*; *Pseudacris occidentalis*, formerly known only from Arkansas and Texas; and *Gastrophryne carolinensis*.

Of the lizards the most interesting species found is *Eumeces anthracinis*, the taxonomic status of which had formerly been in doubt. Only two specimens were taken, one near the Kiamichi

River under a rotten log in a low wet place along a railroad fill, the other in the Wichita National Forest in Comanche County. *Eumeces obsoletus* and *E. pachyurus* are two other interesting forms of the same genus. It is worthy of note that ten specimens of *Anolis carolinensis* were found in McCurtain County along the Red River and north of Broken Bow. It is of interest that the 97th meridian seems to separate the ranges of the two subspecies of *Sceloporus* in the State, *Sceloporus undulatus thayerii* (*u. consobrinus*) occurring west of it and *S. u. undulatus* to the east.

Several interesting snakes may be mentioned: *Leptotyphlops dulcis*, for example, from Kiowa and Cleveland Counties; *Arizona elegans elegans* from Woods County; *Cemophora coccinea* from Okmulgee County; *Natrix septemvittata* from Okmulgee County; *Natrix rigida* from Choctaw County; *Natrix sipedon sipedon* from McCurtain County which had not hitherto been found south of Kansas; *Natrix fasciata confluens* from southern Oklahoma; *Potamophis striatulus* from both Adair and Okmulgee Counties; and *Tantilla gracilis* from several counties. Many great range increases might also be mentioned in detail but they are obvious to those interested.

Perhaps the turtles form a more unusual list than any of the other groups. Among the forms should be mentioned *Sternotherus carinatus*, *Deirochelys reticularia*, *Pseudemys troostii*, and *Graptemys pseudogeographica kohnii*. Three species of *Amyda* were collected last summer, *A. emoryi*, *A. mutica*, and *A. spinifera*.

I am greatly indebted to Dr. L. Stejneger for the identification of most of the turtles collected by the expedition of 1925; to Mr. K. P. Schmidt for the identification of many specimens, and for comparing them with the Field Museum collection; to Dr. F. N. Blanchard for naming specimens of *Natrix* and *Lampropeltis*; and to Mr. J. P. Jones for the identification of our specimens of *Sceloporus*. I am also grateful for the loan of specimens from the U. S. National Museum, the American Museum of Natural History, and the Field Museum of Natural History.

1. *Triturus viridescens louisianae* (Wolterstorff).
McCurtain Co.
2. *Ambystoma tigrinum* (Green).
Cleveland Co.
3. *Desmognathus fuscus brimleyorum* (Stejneger).
McCurtain Co.
4. *Scaphiopus hammondii* (Baird).
Payne Co., F. M. N. H., 2742.

5. *Bufo cognatus cognatus* (Say).
Caddo Co., U. S. N. M., 11829.
Cleveland Co.
6. *Bufo punctatus* Baird and Girard.
Comanche Co., U. S. N. M., 45988.
7. *Bufo woodhousii* (Girard).
Caddo Co., U. S. N. M., 11830a, 11830b, 11830c.
Carter Co., A. M. N. H., 6519.
Cleveland Co.,
U. O. M. Z.
F. M. N. H., 5959.
Comanche Co.
Creek Co., A. M. N. H., 6504-6505, 6942-6945.
Custer Co.
McCurtain Co.
Murray Co.
Okmulgee Co.
Payne Co., F. M. N. H., 2741.
Pushmataha Co.
Roger Mills Co., U. S. N. M., 2646.
Woods Co., F. M. N. H., 557, 638.
8. *Acris gryllus* (LeConte).
Carter Co., A. M. N. H., 6507-6518.
Cleveland Co.
Comanche Co.
Murray Co.
Okmulgee Co.
Pushmataha Co.
Stephens Co.
9. *Pseudacris occidentalis* (Baird and Girard).
Cleveland Co.
10. *Pseudacris nigrita* (LeConte).
Creek Co., A. M. N. H., 7563.
11. *Hyla versicolor versicolor* (LeConte).
Pushmataha Co.
12. *Rana catesbeiana* Shaw.
Cleveland Co.
McCurtain Co.
Murray Co.
Okmulgee Co.
Pushmataha Co.
Tulsa Co.

13. *Rana clamitans* (Latreille).
Lincoln Co.
McCurtain Co.
Pushmataha Co.
14. *Rana pipiens* Schreber.
Caddo Co., U. S. N. M., 11835.
Comanche Co., U. S. N. M., 45987.
Woods Co., F. M. N. H., 558, 639, 755.
15. *Rana sphenoccephala* (Cope).
Cleveland Co.
Comanche Co.
Creek Co., A. M. N. H., 7565-7566.
Le Flore Co.
Lincoln Co.
McCurtain Co.
Murray Co.
Okmulgee Co.
Pushmataha Co.
16. *Gastrophryne carolinensis* (Holbrook).
Caddo Co., U. S. N. M., 11827.
Cleveland Co.
Payne Co., F. M. N. H., 2743.
17. *Anolis carolinensis* (Voigt).
McCurtain Co.
18. *Crotaphytus collaris collaris* (Say).
Carter Co.
Cleveland Co.
Comanche Co., U. O. M. Z.
U. of Mich., 53432, 52933.
Jackson Co.
Kay Co.
Le Flore Co.
McCurtain Co.
Murray Co.
Okmulgee Co.
Payne Co., F. M. N. H., 2737.
Tulsa Co.
Woods Co., F. M. N. H., 555, 637.
19. *Holbrookia maculata maculata* (Girard).
Woodward Co., U. S. N. M., 17559.
20. *Holbrookia maculata lacerata* (Cope).
Comanche Co., U. S. N. M., 44981.

21. *Sceloporus undulatus thayerii* (Baird and Girard).
Choctaw Co.
Comanche Co., U. O. M. Z.
U. of Mich., 52425-52431.
U. S. N. M., 44982.
22. *Sceloporus undulatus undulatus* (Latreille).
Choctaw Co.
Cleveland Co.
Comanche Co.
Le Flore Co.
McCurtain Co.
Murray Co.
Okmulgee Co.
Pushmataha Co.
Tulsa Co.
23. *Phrynosoma cornutum* (Harlan).
Cleveland Co.
Comanche Co.
Kay Co.
Lincoln Co.
Okfuskee Co.
Okmulgee Co.
Tulsa Co.
Washita Co.
Woods Co., F. M. N. H., 552, 636, 650.
24. *Ophisaurus ventralis* (Linne).
Comanche Co., U. of Mich., 52416.
Cotton Co.
Tulsa Co.
25. *Cnemidophorus gularis gularis* (Baird and Girard).
Murray Co.
Pushmataha Co.
Tulsa Co.
26. *Cnemidophorus sexlineatus* (Linne).
Caddo Co., U. S. N. M., 11839, 11841.
Choctaw Co.
Cleveland Co.
Comanche Co., U. S. N. M., 45292.
Kay Co.
Le Flore Co.
McCurtain Co.
Murray Co.

- Okmulgee Co.
 Payne Co., F. M. N. H., 2740.
 Pushmataha Co.
 Tulsa Co., U. O. M. Z.
 U. S. N. M., 44903.
 Woods Co., F. M. N. H., 640.
27. *Leiolopisma laterale* (Say).
 Caddo Co., U. S. N. M., 11837a.
 Choctaw Co.
 Cleveland Co.
 Le Flore Co.
 McCurtain Co.
 Okmulgee Co.
 Payne Co., F. M. N. H., 2739.
 Pushmataha Co.
 Tulsa Co.
28. *Eumeces anthracinus* (Baird).
 Comanche Co.
 Pushmataha Co.
 Tulsa Co.
29. *Eumeces brevilineatus* Cope.
 Caddo Co., U. S. N. M., 11837b, 11837c.
30. *Eumeces fasciatus* (Linne).
 Caddo Co., U. S. N. M., 11843.
 Choctaw Co.
 Cleveland Co.
 Comanche Co.
 McCurtain Co.
 Okmulgee Co.
 Pushmataha Co.
 Tulsa Co.
31. *Eumeces obsoletus* (Baird and Girard).
 Alfalfa Co.
 Comanche Co., U. O. M. Z.
 U. S. N. M., 44985.
 Kay Co.
 Tulsa Co.
32. *Eumeces pachyurus* (Cope).
 Caddo Co., U. S. N. M., 11840.
 Cleveland Co.
33. **Leptotyphlops dulcis* (Baird and Girard).
 34. **Carphophis amoena vermis* (Kennicott).

35. *Diadophis punctatus arnyi* (Kennicott).
Comanche Co., U. of Mich., 52417.
Okmulgee Co.
36. *Heterodon contortrix* (Linne).
Carter Co.
Cleveland Co.
Creek Co., A. M. N. H., 7537, 16912.
Tulsa Co.
37. **Heterodon nasicus* (Baird and Girard).
38. *Ophiodrys aestivus* (Linne).
Kay Co.
Le Flore Co., A. M. N. H., 4205.
McCurtain Co.
Pushmataha Co.
Stephens Co.
Tulsa Co.
Wagoner Co., U. of Mich., 51109.
39. *Masticophis flagellum flagellum* (Shaw).
Coal Co., A. M. N. H., 6378.
Kay Co.
Le Flore Co.
Love Co.
McCurtain Co.
Pushmataha Co.
Tulsa Co.
40. *Masticophis flagellum flavigularis* (Hallowell).
Comanche Co.
Woods Co., F. M. N. H., 561, 621-624.
41. *Coluber constrictor flaviventris* (Say).
Cleveland Co.
Comanche Co.
McCurtain Co.
Okmulgee Co.
Pushmataha Co.
Stephens Co.
Tulsa Co.
Woods Co., F. M. N. H., 560.
42. **Elaphe laeta* (Baird and Girard).
43. *Elaphe obsoleta confinis* (Baird and Girard).
Canadian Co.
Creek Co., A. M. N. H., 7536, 7552, 7575, 14048, 17000.
Haskell Co.

McCurtain Co.
Pushmataha Co.

44. **Arizona elegans elegans* (Kennicott).
45. *Pituophis sayi* (Schlegel).
Canadian Co.
Cleveland Co.
Comanche Co.
Stephens Co.
Woods Co., F. M. N. H., 562-563.
46. *Lampropeltis calligaster* (Harlan).
Kay Co.
47. *Lampropeltis getulus holbrooki* (Stejneger).
Pushmataha Co.
Tulsa Co.
48. *Lampropeltis triangulum amaura* (Cope).
Tulsa Co.
49. *Lampropeltis triangulum gentilis* (Baird and Girard).
Washita Co.
50. *Lampropeltis triangulum sypila* (Cope).
Creek Co., A. M. N. H. 7705.
51. **Cemophora coccinea* (Blumenbach).
52. *Sonora semiannulata* (Baird and Girard).
Carter Co., A. M. N. H., 19401, 19403-10, 19412-23,
19426-28.
Kingfisher Co.
53. *Natrix fasciata confluens* Blanchard.
Choctaw Co.
Comanche Co.
McCurtain Co.
54. *Natrix grahamii* (Baird and Girard).
Cleveland Co.
Muskogee Co.
Okmulgee Co.
55. *Natrix rhombifera* (Hallowell).
Choctaw Co.
Comanche Co.
McCurtain Co.
Pushmataha Co.
56. *Natrix rigida* (Say).
Choctaw Co.
57. **Natrix septemvittata* (Say).

58. *Natrix sipedon sipedon* (Linne).
 Cleveland Co.
 Kay Co.
 McCurtain Co.
 Pushmataha Co.
59. *Natrix sipedon transversa* (Hallowell).
 Comanche Co.
 Le Flore Co.
 Love Co.
 McCurtain Co.
 Tulsa Co.
 Woods Co., F. M. N. H., 564.
60. *Storeria dekayi* (Holbrook).
 Comanche Co.
 McCurtain Co.
61. **Virginia elegans* (Kennicott).
62. *Potamophis striatulus* (Linne).
 Creek Co., A. M. N. H., 7474.
63. *Tropidoclonion lineatum* (Hallowell).
 Comanche Co.
 Kay Co.
 Okmulgee Co.
 Tulsa Co.
64. *Thamnophis marcianus* (Baird and Girard).
 Stephens Co.
 Woods Co., F. M. N. H., 630-631, 565.
65. *Thamnophis proximus* (Say).
 Choctaw Co.
 Comanche Co.
 Le Flore Co., A. M. N. H., 4206.
 U. O. M. Z.
 McCurtain Co.
66. *Thamnophis sirtalis parietalis* (Say).
 Cleveland Co.
 Creek Co., A. M. N. H., 16572, 16913.
 Kay Co.
 Okmulgee Co.
 Tulsa Co.
67. *Tantilla gracilis* (Baird and Girard).
 Le Flore Co.
 Okmulgee Co.
 Tulsa Co.

68. *Agkistrodon mokasen* (Beauvois).
Creek Co., A. M. N. H., 7706, 7767, 16993-16994.
McCurtain Co.
Pushmataha Co.
Tulsa Co.
69. *Agkistrodon piscivorus* (Lacepede).
McCurtain Co.
Pushmataha Co.
70. **Sistrurus catenatus catenatus*. (Rafinesque).
71. **Sistrurus catenatus edwardsii* (Baird and Girard).
72. *Crotalus atrox atrox* (Baird and Girard).
Comanche Co.
Pushmataha Co.
73. *Crotalus confluentus* (Say).
Woods Co., F. M. N. H., 651.
74. **Crotalus horridus* (Linne).
75. *Sternotherus carinatus* (Gray).
Pushmataha Co.
76. *Sternotherus odoratus* (Latreille).
McCurtain Co.
Pushmataha Co.
77. *Kinosternon flavescens* (Agassiz).
Cleveland Co.
78. *Kinosternon subrubrum hippocrepis* (Gray).
Tulsa Co.
79. *Chelydra serpentina* (Linne).
Cleveland Co.
Comanche Co.
Murray Co.
Okmulgee Co.
80. *Terrapene carolina triunguis* (Agassiz).
Atoka Co., A. N. S. Phila.
Cleveland Co.
Le Flore Co.
McCurtain Co.
Muskogee Co., F. M. N. H., 6214.
Tulsa Co.
81. *Terrapene ornata* (Agassiz).
Cleveland Co.
Le Flore Co.
Lincoln Co.
Muskogee Co., F. M. N. H., 6215-6218.

82. *Graptemys pseudogeographica pseudogeographica* (Gray).
McCurtain Co.
83. *Graptemys pseudogeographica kohnii* (Baur).
Le Flore Co.
McCurtain Co.
84. *Pseudemys elegans* (Wied).
Cleveland Co.
McCurtain Co.
Muskogee Co., F. M. N. H., 6213.
Pushmataha Co.
85. *Pseudemys texana* (Baur).
Le Flore Co.
McCurtain Co.
86. *Pseudemys troostii* (Holbrook).
Muskogee Co., F. M. N. H., 8321.
87. *Deirochelys reticularia* (Latreille).
McCurtain Co.
88. *Amyda emoryi* (Agassiz).
Le Flore Co.
89. *Amyda mutica* (Le Sueur).
McCurtain Co.
Pushmataha Co.
90. *Amyda spinifera* (Le Sueur).
McCurtain Co.
Pushmataha Co.