The Ortenburger Field Notebooks

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While serving as Curator of Reptiles and Amphibians in the Stovall Museum of Science and History (now the Oklahoma Museum of Natural History) in the late 1950s, I came across a series of 35 field notebooks deposited in the Herpetology Range collections. These notebooks were records of field activities and collections made between 1925 and 1935 by various field parties, most of them under the direction of Dr. Arthur I. Ortenburger, a long-time member of the Department of Zoology of the University of Oklahoma. At the time, I took possession of these notebooks with the hope that in the future I would be able to examine them fully. Dr. Ortenburger was a herpetologist who pioneered early research in this area in Oklahoma, and because of my similar interests, I felt that the early history of Oklahoma herpetology would be of worth not only to fellow herpetologists, but also to anyone interested in the early natural history studies that took place in Oklahoma. My first inclination was to merely plot a composite map of these various field trips, but as I examined the notebooks and the resulting publications, it became apparent that I was getting insight into the beginnings of the Museum of Zoology and the Oklahoma Biological Survey and the relationship of the field expeditions to these institutions.

Though these notebooks deal primarily with specimens of amphibians and reptiles, they also, in particular, record sites where fish were seined (recorded by lots), and it would appear that the greatest emphasis was upon these groups. However, there are notes on invertebrates, mammals, and indications that birds and plants were also collected. In some notebooks, indications of habitat are included. This report will deal primarily with reptiles and amphibians.

My first approach to deciphering these notebooks was to place all the field collection localities, in sequence, year by year, into a word processor. This involved collating notebooks that covered just the reptiles and amphibian, with others that considered fish, mammals, and invertebrates. This produced a sequence of field notes which indicated where stops were made and if seining took place, if mammals were trapped, and invertebrates collected. Though these collations produced very lengthy accounts, they did give insight relative to the activities taking place at each stop. Camp sites were noted and members of each field party determined where information was available. The localities and routes of each field trip were plotted on maps of Oklahoma, and where necessary, in parts of Arkansas and Texas (Figs. 1, 2). The publications resulting from these field trips were then inspected to determine if further information could be obtained.

Lists of specimens of reptiles and amphibians that might relate to these field trips were then obtained as printouts from the computerized catalogs of the Herpetology Section of the Oklahoma Museum of Natural History (these are housed in the Oklahoma Biological Survey). These lists, sequential by date, were then compared to the field notebooks to determine if the two lists corresponded.

I believe that the collections made during these trips represent the first extensive collections made for Oklahoma reptiles, amphibians, and fish. Other historic collections of amphibians and reptiles from Oklahoma were often sent to museums on the east coast, in Washington and Philadelphia.

This information, perhaps, can be used in constructing a history of the Oklahoma Biological Survey and the Stovall Museum of Science and History, now called the Oklahoma Museum of Natural History.

It must be realized that these field trips, and the localities visited, and routes taken, were under conditions and terminology that existed at the time, so that, in some cases, certain names may no longer be in use.

It is also my hope that others may use these constructed lists of mine to clarify some of the early collections, i.e., correlate the field catalog numbers with those on the specimens in the museum today. These collated lists are too lengthy to publish, but copies will be housed in the appropriate collections in the Oklahoma Museum of Natural

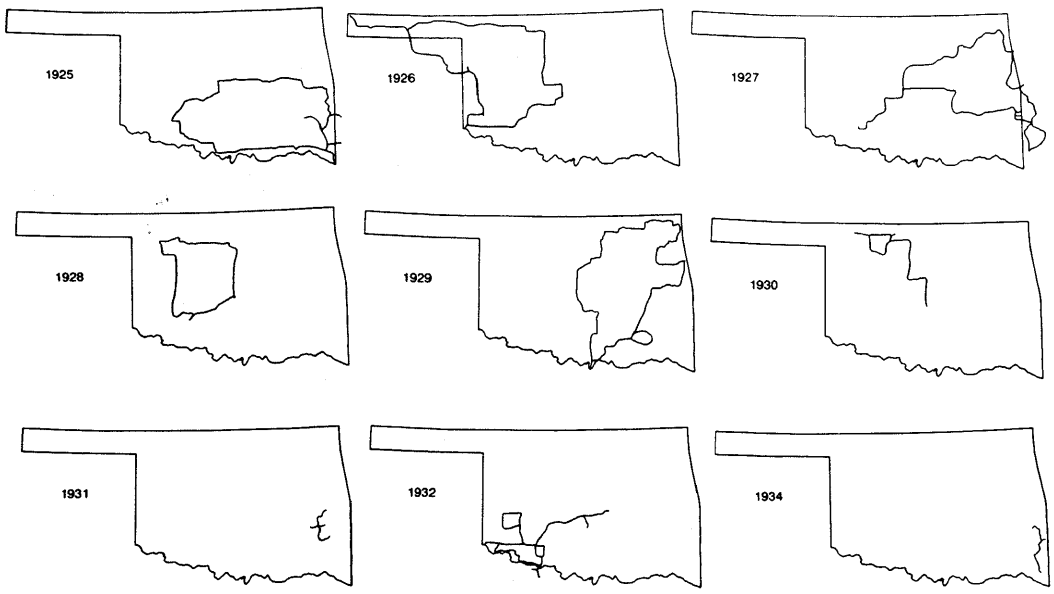

Figure 1. Routes traveled, in the year indicated, on field trips in Oklahoma, as deduced from the Ortenburger field notebooks.

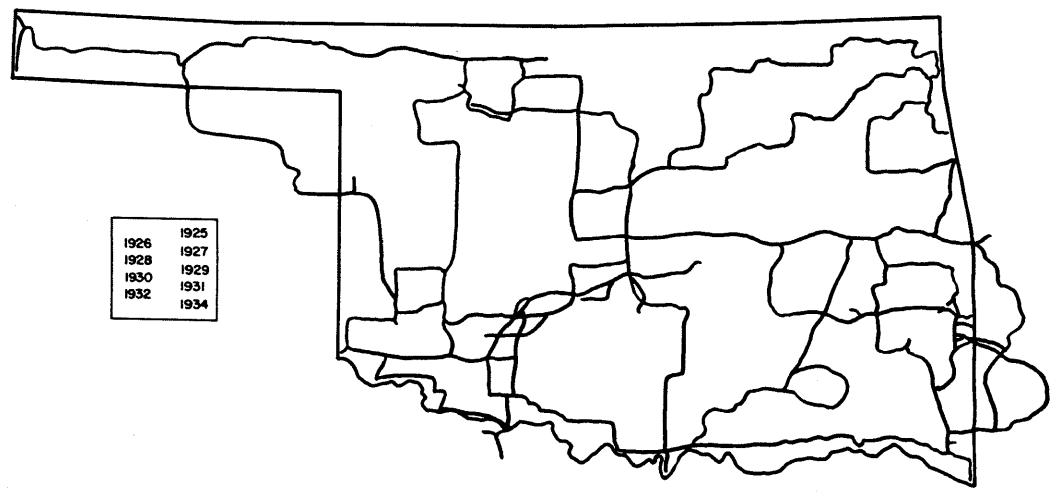

Figure 2. Composite plot of routes traveled on field trips, 1925–1934, as deduced from the Ortenburger field notebooks.

History, along with the original notebooks, and in the Oklahoma Biological Survey.

When checking the OMNH 1925 amphibian and reptile numbered and cataloged specimens with the Ortenburger Notebooks, I found that, for this year, only three amphibians (frogs) were cataloged, while approximately 100, listed in the field notebook, were not cataloged. No salamanders or turtles were cataloged, though specimens of both of these groups are listed in the field notebooks (30 turtles). Most of the lizards and snakes recorded in the field notebooks were cataloged into the museum collections. The field tag numbers for specimens did not correspond with the numbers used on the museum tags.

For the 1926 field trip, the tag numbers in the field notebooks are the same as the tag numbers entered in the museum catalogs. All groups of amphibians and reptiles from the field notebooks were included in the museum records.

To gain some insight into why and how these early field trips started I present the following quotes from early publications of this period.

"The official existence of a museum at the University of Oklahoma dates from 1899, when the territorial legislature authorized the establishment of a 'Department of Geology and Natural History,' with the Professor of Biology as ex-officio 'Territorial Geologist and Curator of the Museum.' The 1902 University of Oklahoma catalog described the Museum of Natural History as comprised of three sections: zoological, botanical, and geological. . . . However, this valuable collection, along with all the others, was lost in the fire which destroyed the first Administration Building of the University in 1903. The tedious work of building the museum collections began anew."(7).

"The Department of Zoology since 1923 has conducted summer expeditions in various parts of Oklahoma with the purpose of making a reconnaissance survey, which will provide a basis for further more extensive work on the resources of the state. These field parties have dealt with vertebrates chiefly, and at the same time have devoted what attention was possible to the insects; no other important group, however, has received the attention throughout the state which it should have. It is proposed to continue these summer field parties not only for the purpose of covering the state in a reconnaissance survey but for conducting experiments on life histories, reactions, adaptations, studies of genetics, parasitology and other fields which will provide a foundation for future biological research." . . . "It has seemed desirable to effect a new and broader organization for studying those problems which are strictly biological survey problems in distinction to those others of laboratory experimentation which are attracting the attention of biologists at the present.". . . "The purpose of the newly established biological survey of the University of Oklahoma is to gather information which will lead to a better understanding, conservation, utilization, and control of biological resources of Oklahoma." (41).

In late April 1926 the Oklahoma Wildlife Institute convened at Boulder Camp in the Wichita National Forest and Game Preserve. This Institute passed a resolution requesting the Oklahoma Legislature to establish a State Biological Survey (2).

"The Board of Regents in their meeting of June, 1927, authorized the establishment of the Oklahoma Biological Survey as a scientific bureau of the University." (42).

"The primary purpose of a state university natural history museum should be to advance scientific knowledge concerning the biota of its own state." (16).

These quotes relate to the initiation of extensive field expeditions throughout Oklahoma and address the purposes for which they were carried out.

Prior to these quotations, the only reference to a state survey of fauna and flora, that I can find, is a mention of specimens of snakes in the Survey (44) and a paragraph in Jeffs (12), which reads as follows and refers to 1898 when Van Vleet joined the University as professor of natural sciences: "Dr. Van Vleet found the region practically unexplored from the botanical, zoological and geological standpoint, and at once interested himself in establishing a state natural history and geological survey. Dr. Boyd, then president of the university, saw the value of such an undertaking, and lending his influence a law was passed that same winter establishing such a survey and appropriating the sum of $200 per year for its maintenance. Dr. Van Vleet, being made director, at once organized an expedition, obtained a team of horses, wagon and other necessary equipment, and himself

advanced a part of the necessary funds to get the work started." With three companions he spent the summer of 1899, making a preliminary survey of what was then included in the Territory of Oklahoma. On this trip a large amount of material was obtained, including plants, minerals, fossils, photographs, etc., as well as valuable field notes.

Many of the results of these field trips (1924-1936) have been published in the Proceedings of the Oklahoma Academy of Science or Publications of the Oklahoma Biological Survey (see Literature Cited).

The assistance of systematic experts to aid in the identification of many of the specimens was frequently used and acknowledged. As an example for the 1930 field trip to western Oklahoma the Diptera were identified by C. H. Curran of the American Museum of Natural History; the Coleoptera by Ralph Hopping, Entomologist with the Department of Agriculture, Canada; birds by Harry C. Oberholser, United States Biological Survey; tiger beetles by J. W. Wallis, Winnepeg, Manitoba, Canada; copepods by E. D. Creaser of the University of Michigan; plants by the United States National Museum; and fish by C. L. Hubbs of the University of Michigan. Dr. Charles N. Gould, Director of the Oklahoma Geological Survey, provided geological information.

Early assistance for the Biological Survey field trips was provided through the generosity of Doctor Howard Atwood Kelly. "To Doctor Howard Atwood Kelly, Emeritus Professor of Gynecology, Johns Hopkins University of Baltimore, Maryland, we dedicate this volume of the Publication of the University of Oklahoma Biological Survey in appreciation of his material assistance over a period of several years with the work of the University of Oklahoma Biological Survey. Like every new enterprise, the Survey started in 1924 in a modest way with a small personnel, little equipment, and a limited budget. Doctor Kelly's gift of a truck and other supplies from time to time, as well as his annual scholarships for student assistants, have been a great help throughout. It is gratifying that our work has merited the abiding interest and friendship of a man whose achievements as a naturalist and whose nation-wide reputation as one of our foremost surgeons have raised a high standard towards which to strive." (38).

Field Trip Summaries

Listed are the year of the field trip, when it took place, members of the field party (where determined), specimens collected (where noted), (number of cataloged specimens of reptiles and amphibians in the Oklahoma Museum of Natural History and the name under which they were collected), counties listed, and published references to these field trips or specimens collected on these field trips.

1924. There is no notebook for this year, but the publication by Ortenburger (23) indicates a collection made by his assistants in the Arbuckle Mountains, Murray Co. during June of 4 amphibians and 16 reptile species. (15 = Ortenburger and Markowitz).

1925. A 7-week field trip from June 12 to July 26 with a party of 5 (A. I. and R. D. Ortenburger, and students J. E. Gilliam, G. S. and J. R. Caughron). Collected over 2000 fish belonging to 14 families, 43 genera and 36 species; amphibians (115 lots), reptiles (350 lots), birds (36 species), mammals, mollusks, crayfish, arachnids, insects (2000). (654 = Ortenburger Expedition). Counties visited included some in Southeastern Oklahoma (Leflore, McCurtain, Pushmataha and Choctaw) and Love and Comanche. (Fig. 1) Publications: (4), (8), (14), (16-19), (20), (22), (40).

1926. A 37-day field trip from June 6 to July 12. The field party of 9 consisted of A. I. Ortenburger, F. S. Barkley, M. Cotton, E. Raney, A. Rennie, E. Little, T. H. Hubbell, K. Fullerton, and B. Freeman. Eleven different camp sites were named for southwestern, western, the panhandle and northwestern Oklahoma including in sequence Comanche, Harmon, Kiowa, Greer, Roger Mills, Texas, Cimarron, Beaver, Harper, Woods and Alfalfa Counties. (Fig. 1) (1480 = Ortenburger Expedition). Publications: (2), (4), (9), (14), (15), (24), (26), (35-37), (43), (45).

1927. A 45-day field trip from June 4 to July 17. No field party listed. Twelve camp sites are listed for eastern Oklahoma (Leflore, Adair, Delaware, Rogers, Osage Counties,) and western Arkansas (Polk, Sivier, Pike, Montgomery, Scott Counties). (Fig. 1) (852 = Museum Expedition). Publications: (4), (5), (9), (27), (29), (30).

1928. June 6 to July 20. Western Oklahoma counties visited were, in sequence,

Comanche, Kiowa, Tillman, Custer, Dewey, Woodward, Woods and Major. (Fig. 1) (516 = Museum Expedition). Publications: (1).

1929. June 10 to July 25. Southcentral and eastern Oklahoma including, in sequence, Carter, Love, Marshall, Johnston, Atoka, Pushmataha, Pittsburg, McIntosh, Muskogee, Sequoyah, Adair, Cherokee, Mayes, Delaware, Ottawa, Nowata, Craig, Osage and Logan Counties. (Fig. 1) (210 = Museum Expedition). Publications: (1), (4).

1930. June 6 to July 30. Field party of 7 consisted of A. I. Ortenburger, H. H. T. Jackson, R. D. Bird, and students H. E. Warfel, E. B. Webster, K. Debusk and M. M. Ravitch. Northwestern Oklahoma (Alfalfa, Logan, Major, Woods and Woodward Counties). (Fig. 1) (622 = Oklahoma Biological Survey). Publications: (1), (3), (4), (11), (34).

1931. June 7 to July 24. Southeast Oklahoma including Latimer, Pushmataha and Leflore Counties. (852 = Oklahoma Biological Survey). (Fig. 1) Publications: (1), (3), (4).

1932. June 6 to August 6. Field party of 8 consisted of R. D. and L. Bird and students W. Fisher, O. Sandoz, Z. Logsdon, E. Webster, A. C. Redding and E. Pritchard. Southwestern, Central and Southeastern Oklahoma including Comanche, Cotton, Tillman, Jackson, Harmon, Kiowa, Beckham, Washita, Grady, Pottawatomie, McClain, Cleveland and Latimer Counties. (Fig. 1) (429 = Oklahoma Biological Survey Expedition). Publications: (3), (4).

1933. No catalog and no cataloged specimens. Presumably there was no field trip.

1934. June 6 to August 17. Field party of 5 consisted of A. H. Trowbridge, H. L. and E. Whitaker, M. D. and K. F. Holcomb. Five camp sites in Southeastern Oklahoma (Pittsburg, Leflore and McCurtain Counties). (Fig. 1) (2548 = Oklahoma Biological Survey).

1935. January 27 to March 12. Field party. P. Fillips. Cleveland and McClain Counties. No reptiles or amphibians cataloged from the dates indicated.

1936. March 1 to May 6. Field party of A. H. Trowbridge. Cleveland and McClain Counties. No reptiles or amphibians cataloged from the dates indicated.

These summaries indicate that these field trips covered 50 of Oklahoma's 77 counties, through all of the various ecological zones and major waterways lying within the state.

The 1926 notebook, the only one for which truck mileage was recorded, indicates a total of more than 3100 miles, which would have been considerable driving, even with today's vehicles and highways. Since the field party was carrying all of their field gear for camping and eating, as well as supplies for capturing and preserving specimens, the logistics must have been a task in itself (2), (14).

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