DISTRIBUTIONAL RECORDS FOR THREE SPECIES OF MAMMALS IN KANSAS

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Distributional Records for Three Species of Mammals in Kansas

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ABSTRACT

Breeding Nycticeius humeralis and nursery colonies of Tadarida brasiliensis in southern Kansas are reported, and the occurrence of Glaucomys volans beyond the western limit of the eastern deciduous forest is documented.

Renewed interest in biogeographic and systematic relationships of mammals on the central Great Plains has resulted in accumulation of additional data on past and present distributions of mammals in Kansas (for example, Choate and Fleharty, 1975; Choate and Williams, 1978). The purpose of this report is to place on record unpublished information for three species whose known distributions terminate in Kansas. Most of the specimens on which this report is based were gathered while one of us (Kunz) was affiliated with the State Biological Survey of Kansas.

Nycticeius humeralis humeralis

Birney and Rising (1967:522–523) summarized the distributional status of the evening bat in Iowa, Nebraska, and Kansas. Included in their account was the report of a pregnant female obtained in Ford County, Kansas, “approximately 200 miles southwest of the nearest previously reported locality . . . .” which thereby documented the westernmost known occurrence of the species in the United States. Glass and Humphrey (1971) subsequently reported additional records of the evening bat in Oklahoma, and Czaplewski et al. (1979) reviewed the distribution of this species in Nebraska.

On 30 June 1969, four lactating females were shot (by Kunz) at a place 2½ mi S and 1¼ mi E Medicine Lodge, Barber County, as they flew (with other bats assumed to be N. humeralis) along the South Fork of the Med-
icine River. The bats were foraging intermittently at treetop level and occasionally dipping toward the surface of the river. Large cottonwood (Populus deltoides), hackberry (Celtis reticulata), and willow (Salix sp.) trees were growing in clusters along the floodplain. The next day (1 July) each building within a two-mile radius of the place where the bats were shot was investigated, but no bats (including other species which are known from Barber County and which frequently occupy buildings) were found. The absence of evening bats in nearby buildings, their sudden appearance at dusk, and the abundance of mature trees on the floodplain suggest that nursery colonies were situated in the trees.

On 10 July 1969, a juvenile female was shot as it foraged adjacent to riparian vegetation near Mule Creek, ½ mi S and 1 mi W Wilmore, Comanche County. Here, too, large cottonwood trees provided potential roosts. At the same locality an adult male Lasiusurus borealis and two lactating female Myotis velifer were shot; the latter species was expected owing to the presence of a large nursery roost nearby (Kunz, 1973), but neither of the other species was. Buildings in the vicinity were examined, but no evening bats were found. Bat traps and nets set along Mule Creek and at entrances to nearby roosts of M. velifer in the summers of 1969 and 1970 failed to produce additional specimens of N. humeralis. The fact that a young evening bat was fledged successfully in Comanche County documents the reproductive success of this species in riparian habitats near the semi-arid, western margin of its geographic range.

An additional evening bat obtained at Larned, Pawnee County, is further evidence for the presence of this species throughout much of western Kansas. The circumstances under which it was taken are unknown. The above-mentioned specimens are deposited in the Museum of Natural History at The University of Kansas.

Tadarida brasiliensis mexicana

Conflicting statements have been made regarding the summer occurrence and reproductive status of the Brasilian free-tailed bat in Kansas. This species apparently inhabited several buildings in Medicine Lodge, Barber County, in the early part of this century (Hibbard, 1936) and, at the time of Cockrum’s (1952) report, these represented the only known summer colonies in the state. Jones et al. (1967:25–27) knew of no permanent colonies in Kansas, and apparently were unaware of the status of the aforementioned colonies in Medicine Lodge. Barbour and Davis (1969:198–199) assumed that “Records from throughout Kansas probably represent wanderers from the great colonies in Oklahoma caves.”

As recently as the summer of 1970, a nursery colony was present in at least one building in Medicine Lodge. Other colonies reported by Hibbard
(1936) have been exterminated or the buildings they occupied have been demolished. In the autumn of 1968, the attic of the Medicine Lodge Hotel was renovated and the remaining bats were eliminated. According to the owner at that time, several bags of guano were removed from the building. In March of 1969, one of us (Kunz) was informed of another colony in the attic of a building adjacent to the Masonic Hall in Medicine Lodge. The presence of approximately 30 free-tailed bats and the accumulation of a considerable quantity of guano suggested that this building had been regularly occupied by bats for several years. This colony was visited periodically during the summers of 1969 and 1970, and it was noted that the population was at its maximal density (about 2000) in June. Young were born in June and early July, and by early September most bats had vacated the building. No adult males were observed. To our knowledge, this building represents the northeasternmost location of a breeding colony for *T. brasiliensis*.

According to a former owner (now deceased) of the building, numerous unsuccessful attempts had been made to exterminate these bats by means of moth crystals and lighted sulfur candles. It is not known whether or not the present owner has attempted to exterminate the bats, and, at this writing (November 1979), the status of the colony is unknown.

Another likely colony was discovered, on 24 November 1971, in an old building in Protection, Comanche County, by personnel from the Museum of the High Plains, Fort Hays State University. Although no live bats were found, numerous mummified remains of free-tailed bats (together with those of cave bats, *Myotis velifer*) and an appreciable quantity of guano indicated that this might represent a breeding colony. Its present status is unknown. The abovementioned specimens are deposited in the Museum of Natural History at The University of Kansas.

*Glaucomys volans volans*

As noted by Cockrum (1952), the southern flying squirrel is rare in Kansas and is known only from forested regions along the eastern border of the state. However, in May of 1965 an immature male was trapped by David E. Loyle in a grove of cottonwood trees and dense brush along Whitewater Creek, approximately 1½ mi N Greenwich, Sedgwick County. The owner of the property on which the squirrel was trapped had been a resident of the area for nearly 70 years, and had not noticed flying squirrels until the early 1960s (D. A. Distler, pers. comm.). This specimen documents an approximately 90-mile westward extension of the known distribution of the southern flying squirrel in Kansas, and represents the first locality of record for the species beyond the western limit of the eastern deciduous forest.

The flying squirrel (preserved in alcohol) was examined by one of us (Kunz) and is deposited in the collection of mammals at Wichita State Uni-
versity. We thank Donald A. Distler for making this specimen available for examination.

**Literature Cited**


