OCCASIONAL PAPERS THE MUSEUM TEXAS TECH UNIVERSITY

NUMBER 85

21 JANUARY 1983

OCCURRENCE OF BAIOMYS TAYLORI (RODENTIA: CRICETIDAE) ON THE TEXAS HIGH PLAINS

FREDERICK B. STANGL, JR., BEN F. KOOP, AND CRAIG S. HOOD

To our knowledge, no published records exist that document the presence of the pygmy mouse, Baiomys taylori, on the High Plains of Texas. However, a specimen trapped on 23 January 1982 revealed the occurrence of this species at a place 4 mi. E Southland, in Garza County. The area is along the upper rim of the escarpment of the Llano Estacado where the surrounding terrain is rough and rocky. Here the mouse was taken in a mesquite-grassland habitat in association with Sigmodon hispidus, Reithrodontomys montanus, Onychomys leucogaster, Peromyscus leucopus, P. maniculatus, and Neotoma micropus. A subsequent search of the mammal collection of The Museum, Texas Tech University, produced other noteworthy records, which also are reported here.

A single specimen was obtained 10 mi. S Post, also in Garza County, on 2 February 1980. The animal was captured by hand in one of many prickly-pear nests of *Neotoma* that were dismantled during a collecting trip by mammalogy students from Texas Tech University. Also collected by this method on that day were *Notiosorex crawfordi*, *Neotoma micropus*, *Peromyscus leucopus*, and *Sigmodon hispidus*. That locality, at the foot of the escarpment, is mesquite-grassland, associated with dense stands of prickly-pear cactus (*Opuntia* sp.). Surrounding terrain has considerable relief and soils are hardpan and rocky.

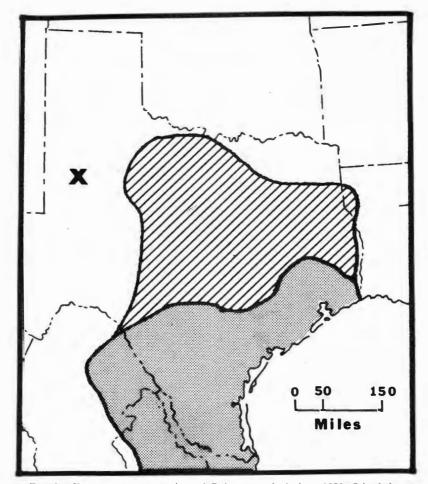


Fig. 1.—Known range extension of *Baiomys taylori* since 1959. Stippled area indicates range of the pygmy mouse in Texas according to Hall and Kelson (1959). Diagonal lines show range extension of the species, from Hall (1981). "X" indicates the approximate location of new records for *Baiomys* in the state.

A series of six pygmy mice was collected 4 mi. N and 1 mi. E Slaton, in Lubbock County, one specimen taken on 27 February 1977 and five on 7 March 1977. That locale is situated in rough, rocky terrain where mesquite-grassland association occurs.

On 7 March 1977, a *Baiomys* was taken at Buffalo Springs Lake, 4 mi. S, 7 mi. E Lubbock, Lubbock County. This is the northwesternmost record of *Baiomys taylori*.

Pygmy mice are typical inhabitants of low grassy or weedy areas (Davis, 1974). The range of the species in Texas, as currently

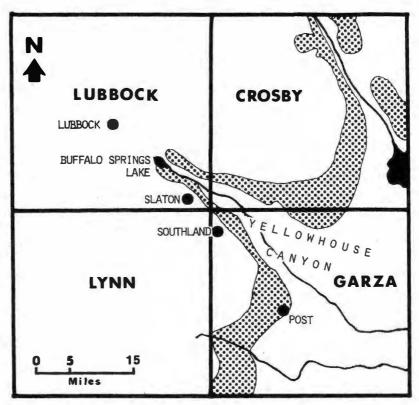


Fig. 2.—Four-county map of reference points for new records of *Baiomys taylori*. Escarpment (stippled area) separates the Texas High Plains of the west from the lower Gypsum Plains to the east.

understood, occupies southern, central, and north-central parts of the state (Hall, 1981; and Davis, 1974). Packard and Garner (1964), in a listing of mammalian range extensions for the Texas High Plains, mentioned only the addition of a specimen from Mason County. Packard and Judd (1968) later provided other northwesterly range extensions of *B. taylori* within the state, and suggested that the species was gradually extending its distribution.

The extent of recent expansion of known range of this species to the north and northwest is shown in Fig. 1. New records reported herein reveal that *Baiomys taylori* now has reached the edge of the High Plains by way of shallow canyons leading down from that region to the Gypsum Plains to the east. Packard and Judd (1968) and Packard and Garner (1964) suggested that these canyons serve as avenues of dispersal for other mammals as well.

Yellowhouse Canyon, forged by the Double Mountain Fork of the Brazos River, appears just such a dispersal route (see Fig. 2). The mouth of this canyon is situated near the previously mentioned collecting sites near Post, in Garza County. The head of the canyon is located near Buffalo Springs Lake in Lubbock County, another locale from which *B. taylori* is known. Places near Southland and Slaton where the pygmy mouse has been collected also are along Yellowhouse Canyon.

Further expansion westward across the High Plains appears unlikely where such canyons meet areas of intense agricultural activities, as occur in Lubbock and Garza counties. However, further trapping and investigation along the escarpment and accompanying canyons may yet reveal more distribution records for the pygmy mouse. Where such canyons originate in areas of suitable habitat, the species might be expected to continue its westward expansion into the High Plains.

ACKNOWLEGMENTS

We thank L. W. Robbins for his help in collecting specimens, and R. L. Robbins for reviewing an earlier draft of this manuscript.

LITERATURE CITED

- Davis, W. B. 1974. The mammals of Texas. Texas Parks and Wildlife Dept., 41:1-294.
- HALL, E. R. 1981. The mammals of North America. Ronald Press, New York, 2:vi+601-1181+90.
- HALL, E. R., AND K. R. KELSON. 1959. The mammals of North America. Ronald Press, New York, 2:viii+547-1083+79.
- PACKARD, R. L., AND H. W. GARNER. 1964. Records of some mammals from the Texas High Plains. Texas J. Sci., 16:387-390.
- PACKARD, R. L., AND F. W. JUDD. 1968. Comments on some mammals from western Texas. J. Mamm., 49:535-538.

Address of Authors: Department of Biological Sciences and The Museum, Texas Tech University, Lubbock, TX 79409. Submitted 12 May, accepted 20 June 1982.