

# OCCASIONAL PAPERS



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## TWO NEW RECORDS OF MAMMALS FROM THE DAVIS MOUNTAINS, JEFF DAVIS COUNTY, TEXAS

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### ABSTRACT

Two species new to the Davis Mountains and Jeff Davis County are reported and discussed briefly.

Key words: *Dasypus*, Davis Mountains, *Microtus*.

The Davis Mountains have been subjected to numerous mammalian investigations since the work of Bailey (1905). Stangl et al. (1994), Genoways and Baker (1979), and Schmidly (2002), among others, have mentioned some of the diversity of mammals of the Davis Mountains. The Davis Mountains fill most of Jeff Davis County; the elevations range from about 5,000 feet at Fort Davis to more than 8,000 feet at the top of Mount Livermore. They are basically rugged masses of igneous rocks (Schmidly 1977).

On 10 October 2005, the senior author retrieved some of the remains of an armadillo (*Dasypus novemcinctus*) from alongside State Highway 17 about 4 km north of Fort Davis (UTM 13 0609567 3389527). The specimen was badly mangled and decayed; only some fragments of the carapace and some of the feet were recoverable, but these were sufficient to provide for a positive identification. To our knowledge, this represents the first record of the armadillo from Jeff Davis County and the Davis Mountains.

Although armadillos frequently are killed on roads (Loughry and McDonough 1996), this record of the armadillo from the Davis Mountains in Jeff Davis County is, at least, a bit enigmatic. Schmidly (1977) stated that the evidence suggests that the armadillo is one of the rarest mammals in the Trans-Pecos.

DeBaca (2005) stated that there is no evidence of armadillos living in or near the Davis Mountains. Furthermore, interviews with employees of the Texas Parks and Wildlife Department, who travel roads in the vicinity of Fort Davis at least five days a week, reported that they had never seen an armadillo in the area. However, a resident of Fort Davis stated that he had seen an armadillo in the same general area as the specimen reported above.

*Dasypus novemcinctus* has shown remarkable range expansion during the last 100 years (McBee 1999). She went on to explain that the possible reasons for its northward expansion include progressive

changes in climate, overgrazing, and removal of large predators. Also, drought and cold temperatures are probably the factors most limiting its continued movement northward. Suttkus and Jones (1999) found armadillos most active within a range of temperature of 17.9-25°C in Louisiana.

Other records of the armadillo from west of the Pecos River include reports from near Balmorhea, Reeves County (Cleveland 1970), and from Reeves, Pecos, and Terrell counties (Schmidly 2004). These records are based mostly upon reports of sightings of armadillos in these areas (Cleveland 1970; Schmidly 2004) and are unverified by specimens. McBee and Baker (1982) stated that the armadillo occurs throughout Texas, except the Trans-Pecos and Panhandle areas. Sightings of these mammals were reported in the area of Fort Stockton (Hermann 1950). Goetze (1998) examined 60 specimens of armadillos from 25 counties on the Edwards Plateau.

The specimen of an armadillo reported herein is further evidence that the influence of the Pecos River on the geographic distributions of mammals has diminished in recent times (Jones and Parish 2001), and that the details of the presence and distributions of mammals in the Trans-Pecos are imperfectly known.

Remains of the armadillo reported herein are deposited in the Collection of Recent Mammals of the Natural Science Research Laboratory, the Museum of Texas Tech University.

In 2001, some remains of *Microtus mogollonensis* were obtained at an archeological site in Wolf Den Canyon, Davis Mountains Preserve, Jeff Davis County, Texas (Mallouf 2002). The remains included a partial upper jaw with cheek teeth, one dentary with two cheek teeth, and two large cheek teeth. After an initial identification, subsequent comparisons of these materials with other specimens in the Natural Science Research Laboratory, the Museum of Texas Tech University, confirmed the identifications.

Organic materials at the site allowed for carbon dating of the stratum where the remains were found. The subfossil remains were estimated to be from the middle Holocene, 3,700 years before the present. Fossil *M. mogollonensis* from the Apache Mountains of west Texas were determined to be from the Pleistocene (Stangl et al. 1994).

Other species of small mammals recovered from the same stratum as the Mogollon vole included *Reithrodontomys megalotis*, *Peromyscus* sp., and *Neotoma* sp. These three taxa of mammals occur in relative abundance in the area of the Davis Mountains today.

Current nearby distribution of the Mogollon vole includes the Sacramento Mountains of New Mexico and the Bow and adjacent areas of the Guadalupe Mountains of New Mexico and Texas. This vole tends to be one of the most arid inhabitants of the mountain-dwelling meadow voles. Typically, it tends to inhabit meadows in open ponderosa pine forests and mixed coniferous forests. Where one or more other species of vole occurs with it, it tends to be restricted to the drier sites (Findley and Jones 1962). If suitable understory plants are available for food and cover, pinyon-juniper woodland would be inhabited on occasion.

Seemingly suitable habitats in the Davis Mountains, which consisted of ponderosa pine forests and mixed coniferous forests, with understories mostly of grasses, were searched and trapped, but no Mogollon voles were found (DeBaca 2005). Previous drought conditions and excessive overgrazing may have led to these voles being extirpated in the area. Subfossil and fossil occurrences are concentrated mostly within the area now inhabited, but most are at lower elevations (Harris 1985). This supports a lowering of vegetation zones in past geologic times.

The *Microtus* specimens reported herein are deposited in the private archaeology collections of the senior author.

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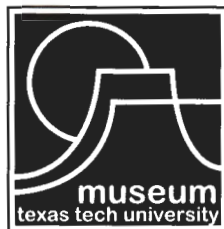
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