
SUBSECTION ZOOLOGY

Mammals Associated With Prehistoric People of Oklahoma

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INTRODUCTION

It was the purpose of this study to identify and tabulate the mammalian osteological material, with the exception of human fragments, from an archaeological site in south central Oklahoma. From these data an attempt has been made to determine the species of mammals associated with the prehistoric inhabitants of the site, the possible maximum and minimum numbers of individuals present, and the uses of some of these animals.

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The Grant site is located in the SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 10, Township 2 North, Range 1 East, I.M., about 1 $\frac{1}{2}$ miles west of Wynnewood, Garvin County, Oklahoma. The site was excavated from May until July of 1937 under the direction of the Works Progress Administration. The site, located on the first terrace of the east bank of the Washita River, revealed the presence of 29 cache pits, 7 burial pits and 1 area of general refuse disposal known as a midden. Based upon relationships with other sites in the area that have been dated by C¹⁴ methods, and pottery types taken from the present area, it has been estimated that the site is approximately 600-800 years old.

MATERIALS AND METHODS

In identification of the faunal remains the keys of Burt (1948), Glass (1951), Hall (1959), and Olsen (1959) were utilized. Supplementing these printed keys, use was made of comparative collections on file in the university mammal range and the archaeology laboratory.

Following species identification, a tabulation of the left and right components of all recognizable limb and jaw bones of the larger mammals was made. Only the skulls of the smaller mammals were considered because of the difficulty in identifying these species by other skeletal parts. From these data the total number of all bones identified for any one species was considered to represent the possible maximum number of individuals present for that species. In determining the possible minimum number of individuals for any one species, the total number of the most abundant single element, such as the calcaneus, provided the criterion.

The method used in computing the possible maximum number of individuals for each species does not account for the possible distribution of

the parts of one specimen in several cache pits. Thus the skeletal parts of one animal may be considered to represent several individuals, since each element is regarded as indicating the presence of a single organism.

RESULTS

Approximately 3,637 faunal fragments were collected from the site. When sorted, the identifiable remains comprised about 565 fragments or slightly over 15% of the total number of fragments found (Table I). Thus the greatest proportion of bone from the site was of little, if any, value in species identification.

DISCUSSION

From Table I it may be seen that a total of 12 species of mammals was identified from the site material. The order Rodentia contained the largest number of species with a total of 4, while the Orders Artiodactyla and Carnivora each contained 3 species. One species each was identified in the orders Lagomorpha and Marsupialia.

It will be seen from the table that such elements as vertebrae, foot bones, and skulls were not abundant or were missing for the bison in comparison with those for the deer. Meighan, *et al.* (1958) found that in the case of larger animals, such as bison, most of the vertebrae, metapodials, and skulls are left at the kill site, while a complete deer would be brought to the dwelling site to be butchered.

From the species tabulation as indicated by the number of bones found, there is a probable preference for certain animal foods, while others are seemingly neglected or less desired. For example, deer seem to be the preferred dietary fauna, while the bison and perhaps cottontail would appear to be somewhat less important. Meighan, *et al.* (1958) state that, "the occurrence of preferred species may indicate a lack of recognition of the potentialities of certain animals or it may be viewed as a result of cultural conditioning."

As seen in Table I, there is an abundance of manus and pes bones in relation to the number of limb bones, which ordinarily provide more food material. This may be an indication that the cache pits had been used primarily for refuse purposes, possibly upon the departure of the inhabitants. In cases where artifacts, maize, and pottery were found in the cache pits, it is likely that the pits had been used at some time as storage areas. On the other hand, the abundance of foot and hand bones may give an indication of the season of occupation. Assuming that the parts of the limbs containing the most meat, such as the humerus and femur were utilized first at the beginning of a non-hunting period, depleted reserves in the cache pits containing only the least desirable parts of the animal might be found at the end of the non-hunting period. Therefore, the presence of these least desirable elements might be an indication of occupation of the site near the end of the winter season.

The large number of pocket gophers found, as shown in Table I, might be indicative of another mammalian source of food. However, the skulls of these mammals showed little evidence of fossilization. It would seem more plausible that these animals may have burrowed into the area during later periods and do not necessarily represent one of the sources of food.

It was also noted while identifying the mammals that some bones had been used as household or farming implements and also as amusement or ceremonial pieces. Such artifacts as bison skull hoes, bison scapula hoes, bison tibia digging sticks, bone scrapers, awls, arrow shaft wrenches made from deer tibia, deer horn flint flakers, and musical rasps made from deer ribs were found in the site. The presence of these artifacts, termed "functional material," was not thought to distort the species count for bison and deer since the number of artifacts was low—approximately 300 artifacts. In addition, most of the functional bone was likely taken from

the mammals previously used for food. The remains of these animals have already been accounted for in the possible maximum number of individuals present.

SUMMARY

A study of the faunal fragments from an archaeological site in Garvin County, Oklahoma, revealed a total of 12 mammal species in association with the prehistoric peoples of the area. By a tabulation of the number of various bones found for each species an apparent preference for certain animal food was noted. The abundance of lower limb bones may be suggestive of the use of the cache pits as refuse areas or it might be an indication of the season of occupation. In addition to using mammals for food, the early inhabitants made use of the bones from these animals as "functional material."

LITERATURE CITED

- Burt, W. H. 1948. The mammals of Michigan. Univ. of Mich. Press, Ann Arbor, v-200 pp.
- Glass, B. P. 1951. A key to the Skulls of North American mammals. Okla. State Univ. Publ., Stillwater, ii-53pp.
- Hall, E. R., and K. R. Kelson. 1959. The mammals of North America. Ronald Press Co., New York, xxx-1083pp.
- Meighan, C. W., D. M. Pendergast, B. K. Swartz, Jr., and M. D. Wissler. 1958. Ecological interpretation in archaeology, Part I. Amer. Antiquity, 24: 1-23.
- Olsen, S. J. 1959. Similarity in the skull of the bison and brahman. Amer. Antiquity, 24: 321-322.
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