

MAMMAL REMAINS FROM TWO PREHISTORIC VILLAGE SITES IN NEW MEXICO AND ARIZONA.

By MARCUS WARD LYON, Jr.,

Assistant Curator, Division of Mammals, U. S. National Museum.

While conducting the field work of the Museum-Gates expedition of 1905, Dr. Walter Hough secured fragments of various mammals from two ancient village sites in New Mexico and Arizona. Among them are bison and marmot remains, which considerably extend the known range of these two animals.

The larger and more interesting lot was collected in a cave on the upper Tularosa River, in western Socorro County, near Joseph, New Mexico. Doctor Hough writes concerning the caves and the remains found in it, as follows:

The cavern is situated in a bluff of yellow conglomeratic tufa resembling sandstone, capping a steep slope about 250 feet above the river. Beneath the overhang and masking the cave were formerly four houses built of rubble. These had been crushed by falls from the cliff and buried under a ridge of débris which almost closed the entrance. The cave is about 30 feet deep, 11 high, and 8 wide, and was filled to within a short distance of the roof with droppings of animals containing layers of various rejects from the houses. The bison bones were found deep in this mass; one cannon bone, showing traces of fire, was taken out below the 6-foot layer.

Of the smaller and second collection, Doctor Hough says:

The animal bones of the second collection came from Blue, Graham County, eastern Arizona. They were obtained in the débris removed during the excavation of an ancient pueblo near that place.

Blue is situated in a long, deep canyon, at an altitude of about 7,000 feet.

LIST OF MAMMAL REMAINS FROM THE CAVE ON THE UPPER TULAROSA RIVER, NEW MEXICO.

Deer (Odocoileus sp.).—Fragments of nearly all parts of the skeleton of one or more species of deer were found to be common. They are too small and not sufficiently characteristic to enable me to determine the species, but probably represent forms of the white-tailed deer and of the mule deer.

Pronghorn (Antilocapra americana (Ord)).—Skin of a young individual and fragment of the skin of an adult.

Bison or *American buffalo* (*Bison bison* (Linnaeus)).—One upper permanent middle premolar of the right side, a portion of a rib, the distal end of a left metatarsal canon bone, the proximal end of a right metacarpal canon bone, a horn, and a small piece of skin.

In the map accompanying his memoir on the American bisons (1876), Dr. J. A. Allen gives the most westerly range of this animal as just beyond the Rio Grande, while on pages 125 and 126 the bison is doubtfully recorded as extending as far west as that river. The present discovery extends its range to within a few miles of the western border of New Mexico, or about 110 miles farther west than hitherto recorded. It is even probable that the bison ranged into Arizona. As noted above by Doctor Hough, the bison remains were found deep in the débris of the cave. He remarks on this discovery as follows:

It seems clear that the buffalo existed in the neighborhood of this cave, from the number of separate bones of the skeleton occurring here, as well as from the fact that the Indians of this locality were never accustomed to carry with them masses of buffalo flesh containing bones. Their method was universally to jerk the meat, thus reducing it to small compass for carrying. The skins, however, were transported long distances and formed an article of trade between the Plains and Pueblo Indians up to the time of the disappearance of the buffalo from the plains.

Rock spermophile (*Citellus grammurus* (Say)).—The greater part of one skull, a portion of another, a scapula, and a few fragments of long bones.

Marmot or *woodchuck* (*Marmota flaviventer* or *engelhardti* ?).—The anterior portion of a skull.

I know of no marmots in collections from near this locality. The type locality of *Marmota flaviventer* is "mountains between Texas and California;" that for *M. engelhardti* is in the Beaver Range Mountains of Utah.

Sonoran white-footed mouse (*Peromyscus sonoriensis* (Le Conte)).—One dessicated specimen.

Rio Grande white-footed mouse (*Peromyscus tornillo* Mearns).—One dessicated specimen.

This and the preceding species were identified by Mr. W. H. Osgood.

Wood rat (*Neotoma* sp.).—A femur and the upper part of a humerus.

Pallid muskrat (*Fiber zibethicus pallidus* Mearns).—Two nearly complete skulls and part of another.

Jack rabbit (*Lepus* sp.).—A tibia and a hind foot.

Cottontail rabbit (*Sylvilagus* sp.).—The lower portion of a humerus.

Plateau lynx (*Lynx baileyi* Merriam).—A mandible, a humerus, and part of a foot.

Scott's gray fox (*Urocyon cinereoargenteus scottii* Mearns).—The greater portion of a skull, two mandibles, a humerus, and part of a foot.

Common skunk (*Mephitis estor* Merriam).—A nearly complete skull. Identified by Mr. A. H. Howell.

Spotted skunk (*Spilogale sp.*).—A lower jaw and the anterior portion of a skull.

Southwestern grizzly bear (*Ursus horribilis horriæus* Baird).—One claw.

LIST OF MAMMAL REMAINS FROM THE ANCIENT PUEBLO AT BLUE POST-OFFICE,
EASTERN ARIZONA.

Deer (*Odocoileus sp.*).—Fragments of nearly all parts of the skeleton.

Wood rat (*Neotoma sp.*).—A femur and a humerus.

Jack rabbit (*Lepus sp.*).—An ulna.

Cottontail rabbit (*Sylvilagus sp.*).—A femur and fragment of a skull.

Cougar or puma (*Puma hipolestes azteca* Merriam).—Portion of a radius.

Plateau lynx (*Lynx baileyi* Merriam).—Part of a humerus and of a tibia.

Scott's gray fox (*Urocyon cinereoargenteus scottii* Mearns).—Fragments of a skull.

Black bear (*Ursus americanus* Pallas).—An *os calcis* and parts of ribs.