SMITHSONIAN MISCELLANEOUS COLLECTIONS
VOLUME 82, NUMBER 14

THE SUPPOSED OCCURRENCE OF AN ASIATIC GOAT-ANTELOPE IN THE PLEISTOCENE OF COLORADO

(With Two Plates)

BY
GERRIT S. MILLER, JR.
Curator, Division of Mammals, U. S. National Museum

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BALTIMORE, MD., U. S. A.

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In the Bulletin of the Geological Society of America, Vol. 11, pp. 610-612, pl. 57, August 10, 1900, Mr. F. W. Cragin described and figured the right humerus and right metacarpal of a "Goat-antelope from the Cave Fauna of Pike's Peak Region." He proposed for this animal the new name *Nemorhœdus palmeri*, and concluded that the discovery of the two leg bones extended the former range of the Asiatic genus *Nœmorhedus* to Colorado. Furthermore he reasoned that:

> If the range of the Pike's Peak capricorn corresponded nearly with that of the Himalayan, and the cave of the capricorn-eating carnivore was conveniently located within the zone of the greatest abundance of the quarry—5,000 to 6,000 feet above sea level—the Rocky Mountain plateau must have stood something like one or two thousand feet lower in its capricorn epoch than today, as the present elevation of the cave approaches 7,000 feet; and as the two conditions above predicated are those most likely to have prevailed, it seems quite probable that *Nemorhœdus*, as an element of the North American fauna, belonged to the Champlain phase of the Glacial epoch.

Apparently no one has yet submitted these findings to critical examination. Hay (The Pleistocene of the Middle Region of North America and Its Vertebrated Animals, 1924, pp. 144, 273, 275) accepts the species as a genuine member of the Pleistocene fauna of Colorado.

The specimens of *Nemorhœdus palmeri* are now in the United States National Museum. They were originally entered under the number 8042, Division of Vertebrate Paleontology, but they have now received the number 255680 in the Division of [recent] Mammals. A few months ago, at the request of Mr. E. R. Warren, these specimens were examined by Dr. J. W. Gidley, who concluded that they are geologically recent in origin and not of Pleistocene age. He therefore asked me to compare them with the corresponding parts of such ungulates as now occur in the Rocky Mountain region. On doing this

I am unable to find any characters by which they can be distinguished either generically or specifically from existing American sheep, notwithstanding Mr. Cragin's belief (Colorado College Studies, Vol. 8, p. 23, April, 1900) that they "differed widely" from the corresponding bones of these animals.

The similarity in both size and form between the type specimen, the humerus, of "*Nemorhœdus palmeri*" and the humeri of three bighorns is made sufficiently evident by the photographs reproduced in plates 1 and 2. Individual peculiarities can be seen in the cave bone as in each of the others; but the specimen appears to be characterized by nothing more important.

Finally, the condition of the femur is such as to lend no support to the idea that the bone pertained to a member of the Pleistocene fauna. There is no indication of mineralization. On protected parts there are thin deposits of a fine reddish dust that is readily removed with water, leaving the surface clean and fresh in appearance. When charred a small fragment gives off the characteristic odor of burned bone.

In the absence of evidence to the contrary, I therefore have no hesitation in regarding the name *Nemorhœdus palmeri* Cragin as a synonym of *Ovis canadensis* Shaw. Mr. Warren writes me under date of August 18, 1930, that the type locality is "Glen Eyrie," the former home of General Palmer, for whom the supposed new species was named. This place is in a valley or canyon about five miles northwest of Colorado Springs, across the "Mesa."

EXPLANATION OF PLATES 1 AND 2

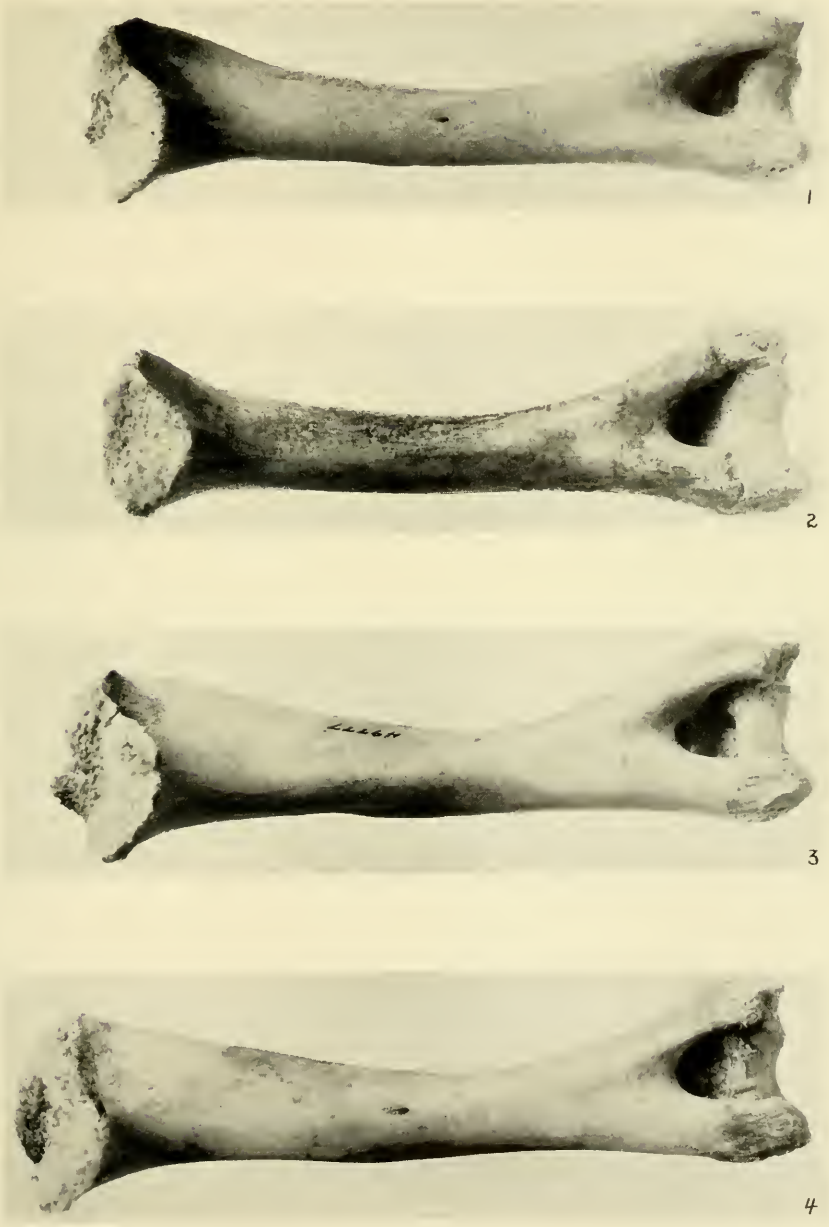
All figures about two-thirds natural size

FIG. 1. *Ovis dalli* Nelson. Female. Lapierre House, Yukon, Canada. No. 20963, U. S. Nat. Mus.

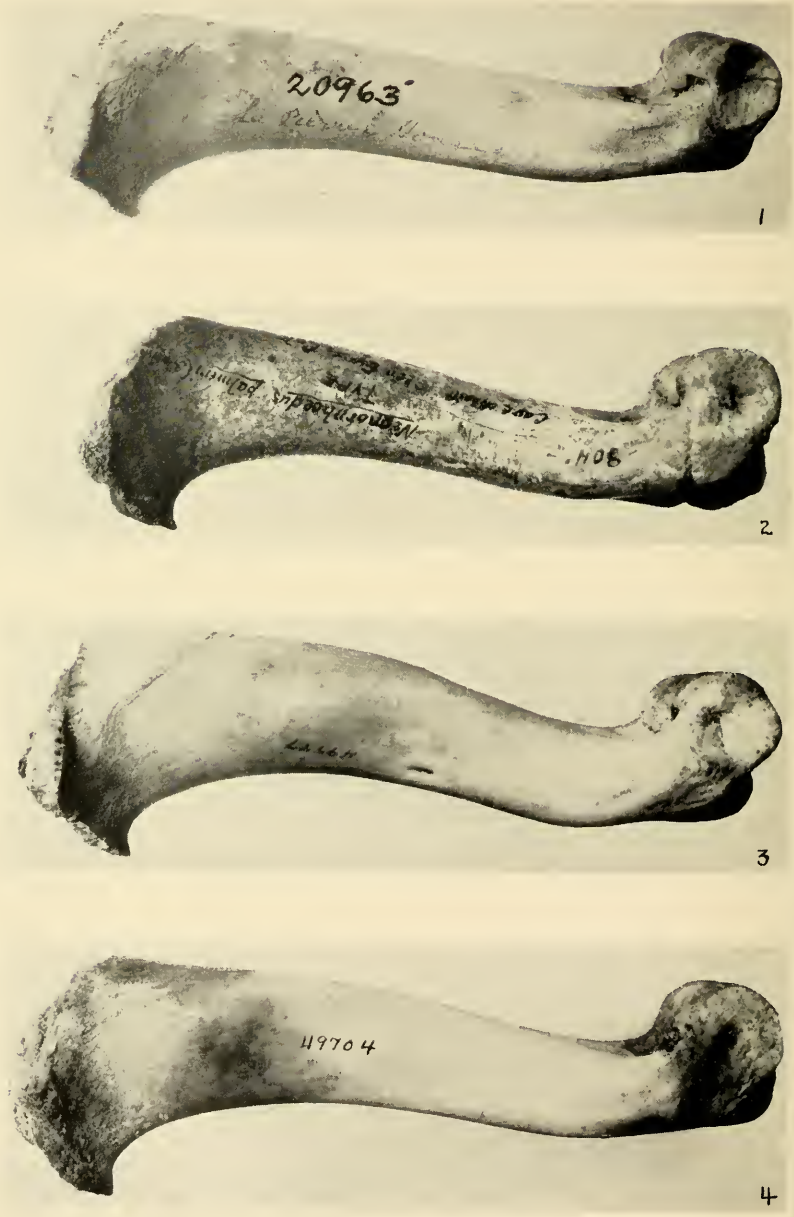
FIG. 2. Type of *Nemorhœdus palmeri* Cragin. Near Colorado Springs, El Paso County, Colorado. No. 255680, U. S. Nat. Mus.

FIG. 3. *Ovis* sp. Male. Exact locality unknown (received alive from D. E. Wintermute, Gila, Arizona). No. 49777, U. S. Nat. Mus.

FIG. 4. *Ovis canadensis* Shaw. Male. Delta County, Colorado. No. 49704, U. S. Nat. Mus.



Right humerus of four specimens of Rocky Mountain sheep (Fig. 2, type of *Nemorhaedus palmeri* Cragin).



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