

Article II. — NEW FORMS OF THE MOUNTAIN GOAT (OREAMNOS).

By J. A. ALLEN.

The type locality of *Oreamnos montanus* (Ord) is given by Miller and Rehn (Proc. Boston Soc. Nat. Hist., XXX, No. 1, Dec. 1901, p. 23) as the "Cascade Range, near the Columbia River, in Oregon and Washington." A comparison of specimens of *Oreamnos* from the Cascades of northern Washington with others from Montana and northern British Columbia shows that the species commonly recognized as *O. montanus* is separable into three geographical forms, namely, (1) *O. montanus montanus* from the Cascades, (2) a much larger form, with longer and narrower skull, from British Columbia, and (3) a much smaller form, with the same type of skull as the last, from Montana and Idaho. As the pelage in all the forms is white, the distinctive characters must rest on size and the form of the skull, so far as present material is available. These forms may be distinguished as follows:

Size medium, skull broad *O. montanus montanus* (Ord).

Size large, skull narrow *O. montanus columbianus*, subsp. nov.

Size small, skull narrow *O. montanus missoulæ*, subsp. nov.

The material available for the present comparison consists of 19 specimens, of which 3 are from the Cascades of northern Washington, 7 from British Columbia (4 from the Shesley Mountains, northern British Columbia, and 3 from near Golden, southern British Columbia), 8 from Montana (mainly from Missoula County), and 1 from Idaho. They include adult males of each of the three forms, and adult females and young males of two of them.

***Oreamnos montanus montanus* (Ord).**

Old male skull (No. 14890, Cascade Mountains, northern Washington, Prof. L. L. Dyche), occipito-nasal length, 312; basal length of Hensel, 270; zygomatic breadth, 114; interorbital breadth, 95; width of maxillary region above m², 86.5; nasals, 104 x 34; length of palate,

176; upper tooththrow (on alveolar line), 73; ratio of interorbital breadth to basal length, 41. Hoof of outer digit of fore foot (at edge of hair), 66 x 30; do. hind foot, 57 x 28.

An adult female skull measures, occipito-nasal length, 291; basal length, — (skull imperfect); zygomatic breadth, 105; interorbital breadth, 87; width of maxillary region above m^2 , 80; nasals, 85 x 32; length of palate, 169; upper tooththrow, 76.5

The collector's external measurements, in part, are as follows: Femur to humerus, 33 $\frac{1}{2}$ in. (851 mm.); height at shoulders, 39 $\frac{1}{4}$ in. (997 mm.).

***Oreamnos montanus columbianus*, subsp. nov.**

Type, No. 19838, ♂ ad., Shesley Mountains, northern British Columbia; Andrew J. Stone.

Old male skull (type), occipito-nasal length, 336; basal length of Hensel, 293; zygomatic breadth, 119; interorbital breadth, 98; width of maxillary region above m^2 , 87; nasals, 122 x 38; length of palate, 184; upper tooththrow, 77; ratio of interorbital breadth to basal length, 35. Hoof of outer digit of fore foot, 74 x 35; do. hind foot, 66 x 33.

The collector's external measurements are, in part, as follows: Femur to humerus, 36 in. (914 mm.); height at shoulder, 43 in. (1088 mm.).

Two other males, adult but not so old, are slightly smaller, having an occipito-nasal length, respectively, of 332 and 299. Three skulls from the Selkirk Mountains (near Golden), southern British Columbia, collected and presented by Messrs. Madison Grant and C. A. Moore, Jr., agree almost exactly in measurements and proportions with the two largest skulls from the Shesley Mountains in northern British Columbia.

***Oreamnos montanus missoulæ*, subsp. nov.**

Type, No. 19336, ♂ ad., Missoula, Montana; E. S. Hathaway.

Old male skull (type), occipito-nasal length, 299; basal length of Hensel, — (basioccipital region mutilated); zygomatic breadth, 108; interorbital breadth, 87; width of maxillary region above m^2 , 81; nasals, 104 x 33; length of palate, —; upper tooththrow, 69; ratio of interorbital breadth to basal length, —. Hoof of outer digit of fore foot, 56 x 28; do. hind foot, 52 x 26.

There are no collector's external measurements available.

Another Montana specimen (skull), not quite so old, but a mature adult, is slightly smaller. An old female skull measures, occipito-nasal length, 280; basal length, — (basioccipital region imperfect); zygomatic breadth, —; interorbital breadth, 80; width of maxillary

region above m^2 , 73; nasals, 96 x 27; length of palate, (imperfect); upper toothrow, 74.

The difference in size between the Montana and British Columbia specimens is striking; the Cascade specimens are intermediate in size between these two forms, but differ from either in the markedly greater relative breadth of the skull.

