

Article XIV.—A NEW SHEEP FROM THE KENAI PENINSULA.

By J. A. ALLEN.

Through the various expeditions of Mr. Andrew J. Stone the Museum is in possession of fine series of the forms of *Ovis* found in northern North America, including the dark form known as *Ovis stonei* and the light form or White Sheep known as *Ovis dalli*.

In 1897 Mr. Stone collected a large series of the latter from the main Rocky Mountains in latitude $66^{\circ} 30'$, which, while not topotypes, doubtless very nearly represent the typical phase of *O. dalli*. During the season of 1901 he also obtained a large series of White Sheep from the Kenai Peninsula. As both series are in summer coat, they are strictly comparable. *Ovis dalli* in summer coat is yellowish white, with the extreme tips of the hairs cinnamon brown, which impart a decided yellowish brown shade to the greater part of the dorsal surface of the animal. In the series from the Kenai Peninsula the general tone of the color throughout is dingy grayish white instead of yellowish white, with the tips of the hair grayish instead of cinnamon. These color differences are probably adventitious, due to earth stains, and therefore not diagnostic. The skull, however, varies in the two forms, so that the Kenai animal is clearly entitled to subspecific separation, and may be called

***Ovis dalli kenaiensis*, subsp. nov.**

Type, No. 17609, ♂ adult, head of Sheep Creek, Kenai Peninsula, July 10, 1901; Andrew J. Stone Expedition.

Similar in coloration (except from adventitious staining from the soil) and external measurements to true *Ovis dalli* (specimens from Nahanna Mountains and main Rocky Mountains, lat. 66°), but presenting important cranial differences. Adult male skulls of the two forms have practically the same dimensions and the same proportions, except that the posterior nares in *O. dalli kenaiensis* are uniformly shorter than in *O. dalli*, the length in four old males in the former being 59 mm. (58–60), and in three old males of the latter 67 mm. (65–68), showing a marked shortening of the post-palatal region in *O. d. kenaiensis*. This is further indicated by the distance between the base of the paroc-

capital process and m^3 , which in *kenaiensis* is 84 mm. and in *dalli* 94 mm., while the basal length of the skull is the same in both forms. Correlated with this is a marked difference in the angle made by the basioccipital axis with the palatal axis. These differences are strongly pronounced, as shown in the accompanying illustrations (Figs. 1 and 2). The teeth are also broader and heavier in the Kenai form, the tooth-row is more convex outwardly, and the palate is broader.

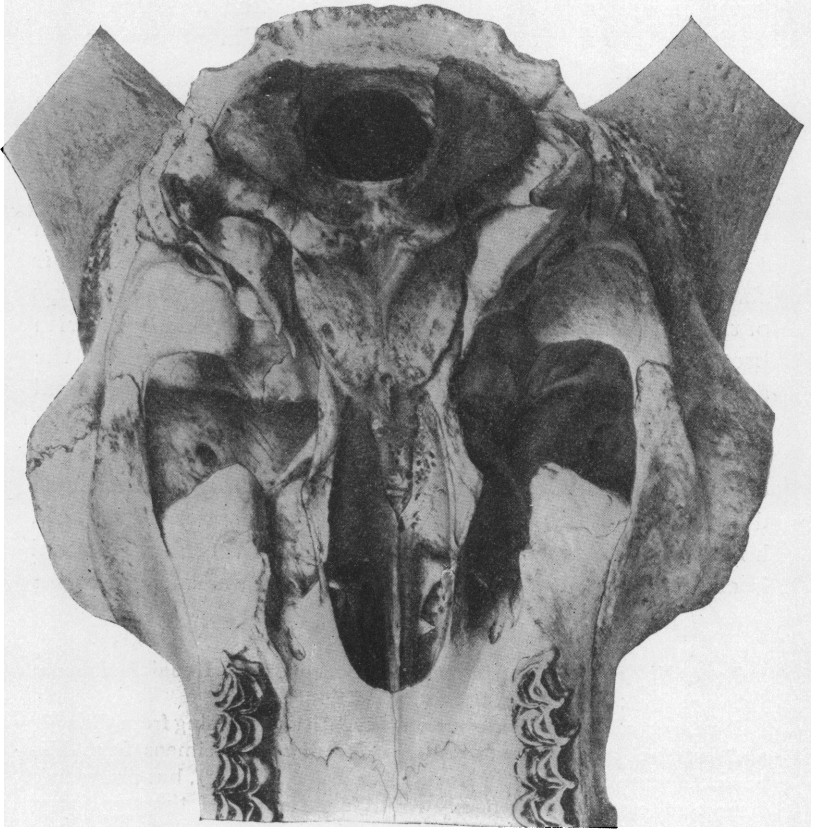


Fig. 1.—*Ovis dalli kenaiensis*, ♂ ad., No. 17609, Kenai Peninsula. $\frac{2}{3}$ nat. size.

Considering the great distance separating these two forms of the White Sheep, it is perhaps surprising that the external differences are not more marked. The fact that they are

normally snow white at all seasons, aside from accidental staining, leaves, however, little opportunity for very marked differences in external features. While examples from widely distant localities, taken in summer pelage, may on compari-

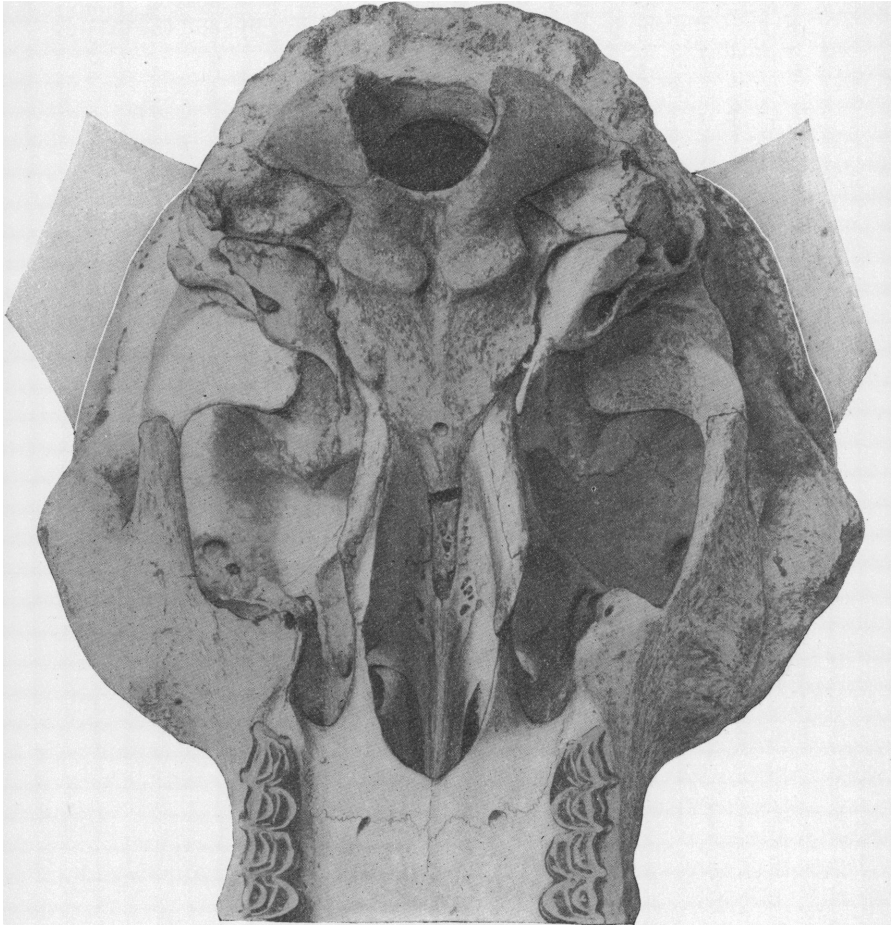


Fig. 2.—*Ovis dalli*, ♂ ad., No. 16223, Rocky Mts., Lat. 66° 30'. $\frac{2}{3}$ nat. size.

son present marked differences in coloration, Mr. William T. Hornaday has very conclusively shown¹ that such differences

¹ Fifth Annual Report of the New York Zoölogical Society, June, 1901, pp. 81-91.

are deceptive, on casual examination, and not real. He says :

“A very convincing explanation of the condition of some skins of White Mountain Sheep, which might be described as ‘dirty white,’ is found in the following interesting statement furnished me on this point by Professor Lewis Lindsay Dyche, of the University of Kansas, based on extensive personal observations in the Alaskan Mountains :

“‘The White Mountain Sheep are a “dingy or dirty-white” during the summer season only. This is particularly true during the months of July and August. By the first of July the animals have shed their long, thick coats of winter hair. At this time they are almost naked, so to speak, the hair being not more than from $\frac{1}{4}$ to $\frac{1}{2}$ inch in length. The animals frequent the sunny sides of the mountain ranges, and make their beds in masses of shale rock, or on slopes where there is more or less dirt. They frequently paw the rocks and earth away so as to make a form large enough to sleep in. These places become more or less covered with droppings. Light snows and rains come, the earth is damp, and the animals get their hair stained until they become a “dingy or dirty-white.” By the first of September the snows are falling, and the animals have a fair coat of hair. They make their beds in the snow, and gradually become white. I saw skins that were white. The ones I got early in September were nearly white, but not beautiful and snow-white like those taken late in the fall and early winter. Pure white skins in the hands of the Indians soon become soiled, and dingy with smoke.’”