

Bears, Proceedings of the Biological Society of Washington, Vol. ix, pp. 65-82, pls. 4-6, April, 1896. In this paper, Dr. Merriam gives 440 mm. ($17\frac{1}{8}$ inches) as the greatest length (front of premaxillary to end of occipital crest), and 277 mm. as the zygomatic breadth of the largest skull (type of the species) seen by him. Corresponding measurements in *A. yukonense* are 521 mm. ($20\frac{1}{2}$ inches) and 364 mm., the breadth being proportionally greater in the Yukon skull.

In general shape the skull of *Ursus middendorffi* shews much resemblance to that of *A. yukonense*. The writer has not had the opportunity of studying the dentition of the former species, but if the teeth depart in any particular from the usual *Ursus* type it would be interesting to note if any approach toward the dentition of *Arctotherium* is indicated. In *U. middendorffi* we may have the descendant of *A. yukonense*, the giant form of the Pleistocene of the extreme north-west.

The great Cave Bear (*Ursus spelæus*) was apparently of about the same height and length as the western North American *Arctotherium*, although the latter animal was probably of heavier build, and its broad, high head with a decidedly short face and nose would give the living animal an appearance quite different from that of the long-nosed *U. spelæus*.

The skull of *U. spelæus* from Gailenreuth, near Muggendorf, Bavaria, figured by Owen in his History of British Fossil Mammals and Birds, 1846, has a length (inion to premaxillary) exceeding that of the Gold-run skull by half an inch. In the same publication is a figure of a canine (fig. 29) referred to *U. spelæus*, from Kent's Hole, Torquay, which is almost as large as the canines of the skull from Gold-run creek.

Another skull of *U. spelæus*, from Banwell, England, is, using a corresponding measurement, only one quarter of an inch shorter than the Gold-run skull (Palæontographical Society, 1906, a Monograph of the British Pleistocene Mammalia, Vol. ii., pt. ii., The Bears, by S. H. Reymolds, pl. 1, fig. 1).

EXPLANATION OF PLATES.

- Plate I.—Right lateral aspect of the skull (type) of *Arctotherium yukonense* (upper figure). Occipital aspect of the same (lower figure).
Plate II.—Palatal view of the same skull.
Plate III.—View of the same from above.
Figures one-fourth natural size, linear.