

It approaches closest to *A. simum*, Cope*, from which, however, it differs in general proportions as well as in a number of particulars.

In general shape it is broader throughout, except axially, behind the hard palate and including the brain case and forehead, where it is narrower; its height in its posterior half is less.

Comparing the Yukon skull further with the Californian one the following differences are apparent: (1) The breadth across the maxillæ, over the swelling for the root of the canine and in line with the median foramen in the palate, is greater. (2) The breadth across the postorbital processes is less. (3) The brain case is smaller, causing a more rapid contraction of the upper portion of the skull backward from the postorbital processes; the narrowness is here accentuated by the greater height and farther backward extension of the sagittal crest. (4) The molar-premolar series occupy a shorter space. The molars and fourth premolar are smaller, and the premolars in advance of the fourth are less crowded. (5) The median anterior foramen, as also the posterior palatine foramina occupy more posterior positions relative to the teeth. (6) The posterior nares is farther back from the second molar, although the hard palate apparently has the same proportionate length. The posterior narial opening is narrower and more pointed in front. (7) The breadth across the palatines at the posterior nares is much less. (8) The breadth across the mastoid processes of the periotics is much greater. (9) The occipital condyles are narrower and, as seen from below, their anterior margins are almost at right angles to the longitudinal axis of the skull, and are not directed obliquely backward as in *A. simum*.

The following measurements of the Californian skull, as given by Cope, are:—

	Mm.
Length along base from below apex ofinion to premaxillary.....	387
The same in <i>A. yukonense</i>	506
Elevation of forehead vertically above the posterior extremity of the last molar.....	141
The same in <i>A. yukonense</i> (estimated)	200
Width between inner border of posterior molars...	76
The same in <i>A. yukonense</i>	93

A. yukonense exceeded in size the largest of the living bears, viz.: the Kadiak or Alaska Peninsula bear (*Ursus middendorffi*) described by Merriam in his Preliminary Synopsis of the American

*The American Naturalist, 1879, vol. XIII, p. 791 and 800; 1891, vol. XXV, p. 997, pl. XXI, figs. 1, 2 and 3.