

The elder Robertson, who had trapped hundreds of black bears, was so impressed by the animal that he brought home not only the pelt but the skull, and a forepaw. J. D. Robertson, our present correspondent, clearly recalls his father showing the youngsters the long claws of the bear and the massive skull, and comparing them with those of the black bear with which they were so familiar. He also showed the trap which, though considered too powerful for black bear, had not broken the paw of the trapped animal, and had been twisted out of alignment.

Examination of the bear indicated that, though impressively large, it was the smaller of the two originally tracked. On the following day Mr. Lacey, and subsequently the elder Robertson, located the larger bear. Heavy brush, and the obvious size and potential of the animal, persuaded them not to risk a shot, and they left it unharmed.

Mr. Robertson points out that though the bear was not "grizzled" it was so different from a black bear that his father retained the pelt for some time as a personal memento.

Grizzly in Manitoba as late as 1923? We still can't be certain, but the evidence warrants close examination. Phil and Jed Reader of The Pas, in personal correspondence with J. D. Robertson, mention receiving reports of grizzly in the Pasquia hills in the 1920's.

PRAIRIE NEST RECORDS SCHEME

Contributors to the Prairie Nest Records Scheme are reminded to send their nest record cards to Dr. Robert W. Nero, Manitoba Museum of Man and Nature, Winnipeg 2. If you have not previously contributed to this scheme but are interested in keeping good records of individual nests or colonies of nests write to Dr. Nero for advice and information about the scheme.

IDENTIFICATION OF BISON SKULLS

by Fred Schutz, Buffton, Alberta

Regarding the photograph of the buffalo skulls sent in by Mrs. G. Knudsen of Porcupine Plain, Manitoba, and published in the September, 1967 issue of the *Blue Jay*: Any skull measuring 28 inches would very likely be that of the Wood Bison (*Bison bison athabasca*). It is too large to belong to a Plains Bison (*Bison bison bison*).

Any buffalo skull — or skeleton — brought to light today should be carefully preserved as another link with our ever receding past; as a reminder that scarcely more than 100 years ago, 60,000,000 buffalo, by reliable estimate, roamed over North America. Quite apart from this, a large bison skull may occasionally be found that is old enough to be of considerable value to paleontologists, archaeologists and historians. Several species of bison, all but two of them long extinct, have left skeletal remains which turn up with varying frequency and in various stages of preservation. Identification of prehistoric types is often difficult, especially for the layman. To be able to hazard even an educated guess as to the age and species of a bison skull, it is necessary to know something about the early history of the buffalo on this continent, a subject about which much remains to be learned, and about which very little was known until a few short years ago.

It all began with a monstrous animal named *Bison latifrons* which came to North America via the Behring Land Bridge some 500,000 years ago. A *latifrons* bull was the size of a small elephant and carried horns measuring seven feet between the tips. Along with other giant mammals of times past, the bison diminished in size down over the millenia. *Bison crassicornis* is the name given to one of these smaller species. Several of the skulls identified as *crassicornis* have been found in Alaska and seven in Alberta. *Crassicornis* has been extinct for many thousands of years,

and as it went into a gradual decline at least two smaller types were gaining the ascendancy. These were *Bison occidentalis* and *Bison antiquus*. *Occidentalis*, the larger of the two, occupied the northern half of North America, and by about 8,000 years ago had become small enough to be called by today's scientists, *Bison bison athabascae*, our modern Wood Bison.

Well to the south, *antiquus*, over about the same period of time, was evolving into the present day Plains Bison, the smallest of the breed. Plains Bison, and very likely their predecessor, *antiquus*, were herd animals. They formed the great multitudes of their kind that were destroyed in so short a space of time less than a century ago; the greatest spectacle of herd animals the world has ever known. Wood Bison, on the other hand, and possibly *occidentalis* before them, were not given to large groupings, but lived scattered in small groups or individuals throughout the wooded and forested areas north of the prairie and along the foothills and mountains to the west.

When a bison skull is found today, the outer horn shell is almost never a part of it. Only the bone that formed the horn core and was attached solidly

to the skull remains. It is the measurement from tip to tip of these horn cores that provides the quickest if not the most reliable identification of the skull as to species.

Here, from a table compiled by L. A. Bayrock, of the Research Council of Alberta and published in Archaeological Society of Alberta Newsletter No. 8, Spring, 1966, are some minima, maxima, and average horn core measurements in inches for four of the above mentioned species. There is no data for *antiquus* and apparently no such measurement exists for *latifrons*.

There is, of course, some overlapping, and other factors and other measurements might have to be taken into consideration to make positive identification of a skull that measured, say 29 inches. It might be a large Wood Bison or a small to average *occidentalis*.

Persons finding buffalo skulls are urged to save and preserve them. If the finder doesn't want it, some one or some museum certainly will. Take it out of the weather. Wash and thoroughly dry, then shellac and varnish it. If you suspect it to be unusually old, note exact location and depth at which it was found so that experts in this field of study may more easily identify it.

TABLE. Horn core measurements (in inches) for four species of bison
(table compiled by Bayrock)

	Minimum	Maximum	Average
<i>Bison bison bison</i> Plains buffalo	19-1/8	26-1/8	22-7/8
<i>Bison bison athabascae</i> Wood buffalo	23	30-1/4	26-1/8
<i>Bison occidentalis</i> Extinct western bison	26-3/8	34-1/2	29-3/8
<i>Bison crassicornis</i> Giant extinct bison	30-1/8	51	37-7/8