

FIG. 1. Map of Dawson area, Yukon Territory, showing fossil locality on Gold Run Creek.

purchased in 1968 and 1969 by Dr. W. Y. Watson and the junior author. These collections are deposited in the museum at Laurentian University, Sudbury.

During the 1966–1972 period, the senior author made periodic stratigraphic checks of the fossil-bearing deposits and concluded that most of the specimens were derived from muck (frozen silt, generally consisting of loess or reworked loess with some organic matter) near the surface of underlying gold-bearing gravel. Late Pleistocene mammal remains are usually found in stratigraphically similar situations throughout the region (Fig. 2). However, the *Bison alaskensis* skull fragment, which is evidently older than other specimens from Gold

Run Creek, came from a deep sink in the creek bed.

In August, 1972, a pair of bison horncores and a few fragments of mammoth bone were found by the senior author *in situ* 40 ft (12.2 m) up a gully on the right limit of Gold Run Creek. The fossils were partly exposed between 13 ft (4.0 m) of overlying brown, highly micaceous muck and at least 4 ft (1.2 m) of underlying oxidized auriferous gravels. The contact between the gold-bearing gravels and schistose bedrock was covered locally, but could be seen  $\frac{1}{4}$  mile (.4 km) upstream.

The purpose of this paper is to describe material from the two collections mentioned (catalogue designations are NMC—National



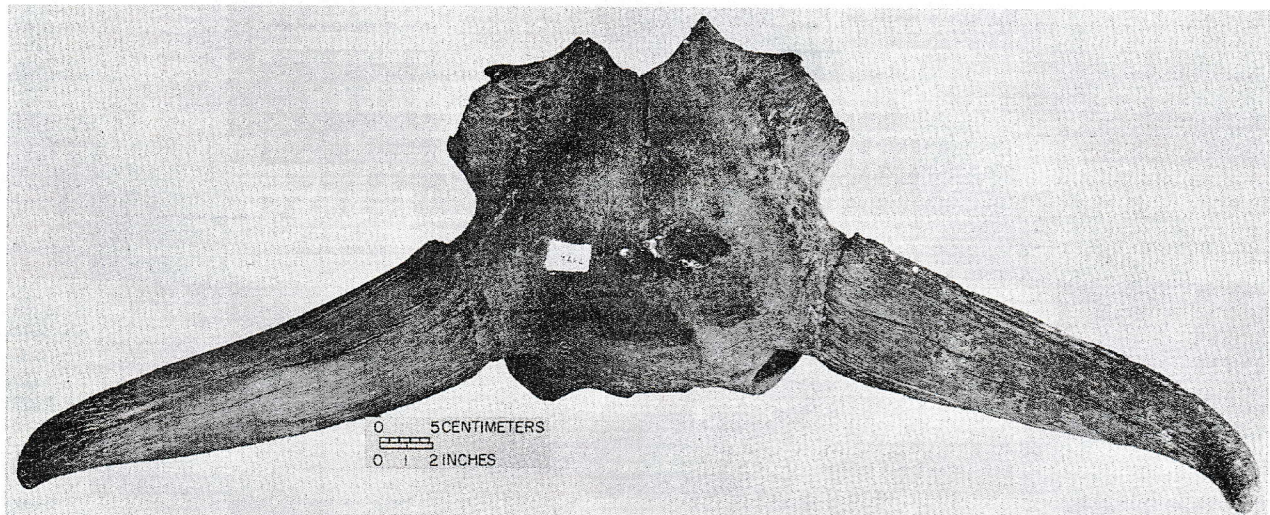


FIG. 41. Dorsal view of posterior of cranium with horncores of *Bison crassicornis* (NMC 7392). Hornsheaths when in place on the horncores increase their length by about one third.

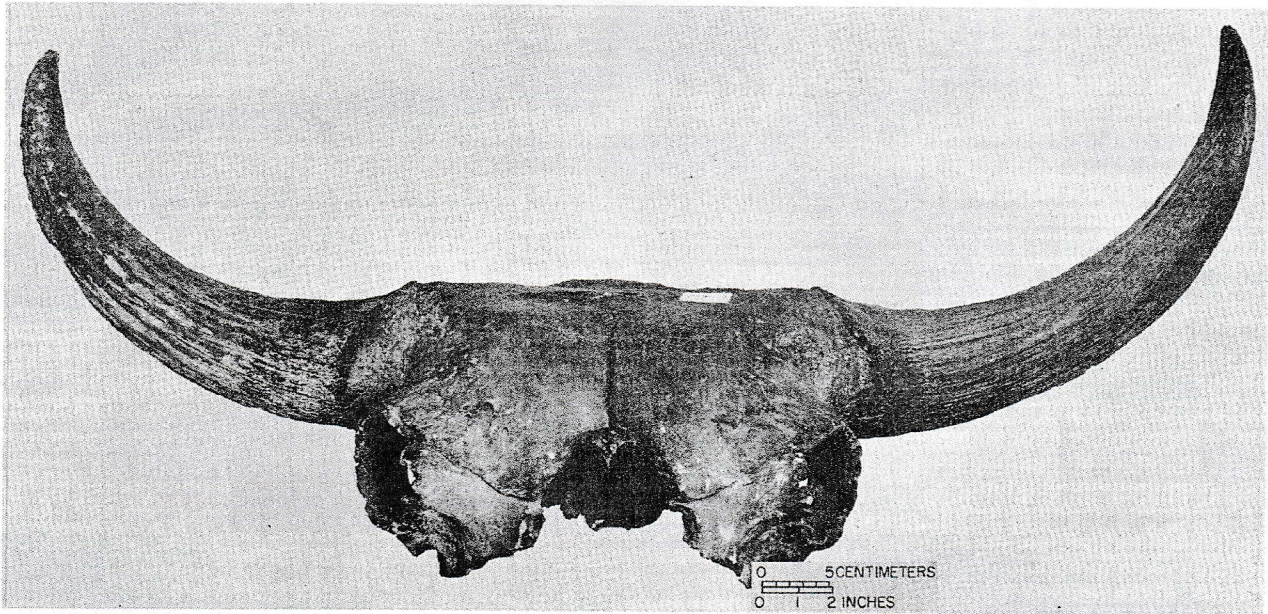


FIG. 42. Anterior view of cranial fragment with horncores of *Bison crassicornis* (NMC 7392).

(NMC 13516, 13517), and one left (NMC 13518).

Because of their robustness and relatively large horncore base circumferences we consider that most of the cranial fragments represent males. However, NMC 13513, 13514, and 13515 have the slenderness, roundness in section, and poorly developed burrs typical of *B. crassicornis* females (see Skinner and Kaisen 1947, Plate 23). The most nearly complete female specimen (NMC 13513) has pro-

nounced longitudinal grooves on the ventral surface and dorsal tip of the horncore. A moderate to small superior longitudinal groove on the horncores is given as a specific character of *B. crassicornis* male skulls by Skinner and Kaisen (1947, p. 189). The sheath of NMC 13513, when in position on the core, increases its length along the upper surface by approximately one third.

Maxilla fragments (Table 21) include: an adult left maxilla fragment with cheek teeth



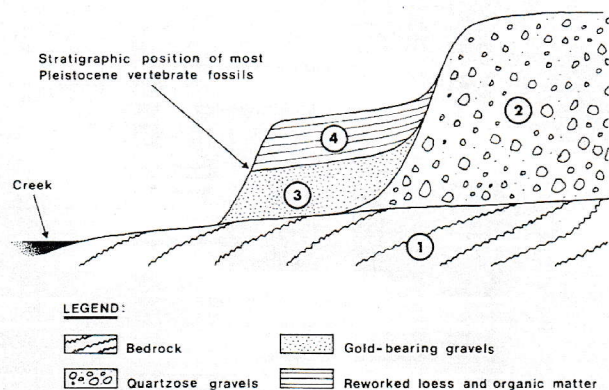


FIG. 2. Schematic diagram showing generalized stratigraphy along creeks in the Dawson area, Y.T. It applies to the fossil locality at Gold Run Creek, and is based on a section described by the senior author (field notes, 1970) at nearby Quartz Creek. Downstream view. Stratigraphic units: 1. Schistose bedrock. 2. White Channel gravels (quartzose)—?early Pleistocene. 3. Auriferous gravels (iron-stained)—pre-Wisconsin ?interglacial. 4. "Muck" (frozen loess and reworked loess containing organic matter)—Wisconsin to postglacial.

Museums of Canada, and LUM—Laurentian University Museum), to provide illustrations and measurements of the most important specimens, and to comment on the age and paleo-environment of the fauna.

#### Faunal List

- Canis cf. lupus* Linnaeus  
 \**Arctodus simus yukonensis* (Lambe)  
 †*Taxidea taxus* (Schreber)  
 \**Panthera leo atrox* (Leidy)  
 \**Mammuth americanum* (Kerr)  
 \**Mammuthus primigenius* (Blumenbach)  
 \**Equus (Asinus) lambei* Hay  
 †*Equus cf. E. (Asinus) kiang* (Moorcroft)  
*Alces alces* (Linnaeus)  
*Rangifer tarandus* (Linnaeus)  
 \*?*Boötherium* sp.  
 \**Bison alaskensis* Rhoads  
 \**Bison crassicornis* Richardson

\*Extinct species.

†Species now extinct in the region.

#### Radiocarbon Dates

Dates reported have been carried out for the Quaternary Zoology section, National Museums of Canada by Isotopes Westwood Laboratories. Bone and horncore material was

processed according to the method of Berger *et al.* (1964, p. 999) and subsequently modified by C. V. Haynes. The modification involved treating the collagen with a dilute sodium hydroxide solution to remove the possibility of humic acid contamination.

#### Systematic Account

*Canis cf. lupus* Linnaeus

?WOLF

Two canid specimens have been collected. The first is a right pelvic fragment (NMC 13487; Fig. 3, Table 1). Of recent specimens to which it was compared, NMC 13487 resembles most closely two adult male wolf pelvic bones from Ontario (NMC 30055, 30054).

The second fossil (NMC 17904; Fig. 4) is the proximal part of a left ulna which is very similar to recent wolf ulnae in the National Museums of Canada mammal collection and probably belongs to that species. Although the semilunar notch is largely preserved, the olecranon is lacking. The well developed radial notch of NMC 17904, the position of the nutrient foramen, and the muscle scar distal to it match those characters in *Canis lupus* ulnae.

Wolves are wide-ranging carnivores, and do not typify any particular habitat. They still occupy the Yukon Territory.

*Arctodus simus yukonensis* (Lambe)

SHORT-FACED BEAR

While digging for gold on fractional creek claim No. 57a, Gold Run Creek in 1909, Joseph S. Perron found most of a bear cranium at a depth of 40 ft (12.2 m) in frozen ground. A notarized statement to this effect is filed in the catalogue of the Paleontology Division, National Museums of Canada. The specimen was sold to Mr. P. F. X. Genest of Ottawa, who in turn sold it to the National Museums.

Lambe (1911a) first referred to the specimen as *Arctotherium cf. simum*. He (Lambe 1911b) later described the cranium (NMC 7438; Figs. 5–7) as the type of a new species of short-faced bear *Arctotherium yukonense*, which he considered most closely allied to *A. simum* Cope. Kurtén (1967, p. 57) recognized a subspecific difference between the very large forms from the Yukon, Alaska, California (Irvington), and Nebraska (Hay Springs), and