

The Recent History of Bison in Alaska and Northwestern Canada; Integrating Zooarcheological Data and Indigenous Knowledge

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It has long been known that bison were widespread and abundant in Alaska during the late Pleistocene, after dispersing to North America by the Bering Isthmus several hundred thousand years ago. Large-horned Pleistocene bison evolved into modern, small-horned bison during the late Pleistocene and early Holocene, and wood bison (*B. b. athabascae*) were the last type of bison to occur in Alaska. The history of northern bison during the last few thousand years was not well understood until recently, and only a few ethnographers, archaeologists and biologists had considered the possibility that bison persisted, and were a resource for Athabascan people, during the late Holocene. Historical accounts from Athabascan elders in Alaska and Canada and continued radiocarbon dating of skeletal remains by various investigators have enriched our understanding of the history of wood bison and Athabascan people. We present paleontological and archaeological data, and oral accounts from Native elders in Alaska and Canada, focusing on the late Holocene history and human use of wood bison. These data include oral narratives provided by Athabascan elders in several interior Alaskan villages, similar accounts obtained from First Nation elders in Yukon and NWT, and radiocarbon dates from bison remains collected at various locations in this region. Oral narratives provided by thirteen Athabascan elders in Interior Alaska indicate bison were sufficiently abundant to be a resource of some importance as recently as 200 to 300 years ago. Native elders describe how bison provided high quality food and raw materials, and some accounts emphasize their importance as a resource. They describe this animal as being of unusually large size with small, upward-pointing, curved horns, a large hump, large head, short legs, long hair and a long tail. These features are typical of wood bison. Bison were hunted with bow and arrow, spears, dogs, and with snowshoes to gain advantage in deep snow, and possibly with drives. Hides were tanned and used to make robes, pillows, and clothing, and sewing thread was made from bison hair. The accounts indicate that substantial populations of wood bison declined or disappeared from Alaska by the early or mid 1800s, with the occurrence of small numbers in the eastern interior as late as the early 1900's. Several elders were familiar with one or more *Gwich'in* terms for bison. There are presently 60 Holocene radiocarbon dates from 57 locations for bison remains in Alaska and northwestern Canada, ranging from about 170 to nearly 10,000 years before present, with numerous additional dates for late Pleistocene bison. Approximately half of these dates are from archaeological sites. Zooarchaeological data and indigenous knowledge are corroborative, and indicate that wood bison existed in parts of interior and southcentral Alaska during most of the Holocene, disappearing only during the last few hundred years. The historical information has fostered interest in, and provided the foundation for, restoring wood bison in parts of their original range in Alaska. Wood bison restoration is the focus of considerable public interest, and would be a major step in wood bison conservation.



**American Association for the
Advancement of Science**

**55th Arctic Science Conference
Anchorage Session**

Human Dimensions of the Arctic Environment

29 September – 1 October, 2004

**Hotel Captain Cook
Anchorage, Alaska**

**Program
and
Abstracts**

**Published by
AAAS :: Arctic Division
Fairbanks, Alaska 2004**