

A reconstruction of steppe bison (*bison priscus*) mobility in the yukon-tanana uplands and implications for prehistoric human behavior

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This study seeks to reconstruct steppe bison (*Bison priscus*) behavioral ecology in interior Alaska during the Pleistocene for the purpose of understanding how bison may have moved about the landscape on a seasonal basis, and how this behavior could have structured prehistoric human settlement and subsistence patterns. Steppe bison once roamed across Alaska and other circumpolar regions in great numbers, but became extinct during the late Holocene. Archaeological evidence from the Tanana River Basin indicates that bison were important components of human subsistence economies for at least 7,000 years, but aspects of steppe bison behavioral ecology including location of habitat area, seasonal movement patterns, and responses to environmental change remain largely unexplored in Alaskan archaeology or paleoecology.

This study applies strontium, oxygen, and carbon isotopic analyses to 14 sequentially-sampled and AMS radiocarbon dated steppe bison teeth from two locales in the Yukon-Tanana Uplands in order to reconstruct steppe bison behavior on a seasonal basis. This study is the first of its kind for a