

## **ANIMAL RESOURCE USE AT BONNEVILLE ESTATES ROCKSHELTER – THE EARLY OCCUPATION**

Between about 12,850 and 9,500 years ago, BER was intermittently occupied numerous times. This was the period of time known as the latest Pleistocene and Early Holocene. The latest Pleistocene (ca. 12,850 – 11,650 years ago) generally coincides with a climatic phase known as the Younger Dryas. Many well defined hearths were excavated from these early layers, and surrounding most of these hearths were the remains of food items eaten by the human occupants. This was a period of relatively cool and moist climatic conditions – very different from today. The land surrounding BER today is dominated by xeric or dry-adapted plants such as low sagebrush and Indian Rice Grass. Between 12,700 and 10,500 years ago, however, plants growing in front of BER included big sagebrush and limber pine trees. Bones from animals that currently live in dense, mature stands of big sagebrush, such as pygmy rabbits, are very common in these early BER layers. And one of the most common animals hunted during this time was the sage grouse. In addition, other animal remains commonly found around the hearths included jackrabbits, artiodactyls such as pronghorn antelope and mountain sheep, and katydids (grasshoppers). A burned phalange (finger or toe bone) of a black bear was also found. The katydids and black bear suggest that trees were growing in relatively thick stands near the shelter. The human occupants burned limber pine wood and bark, as well as sagebrush, in their hearths. Although BER sits at about 5,280' in elevation, limber pine trees today rarely grow below about 7,000' in elevation; this suggests that it was cool enough for limber pine trees to grow almost 2,000' lower in elevation than today.

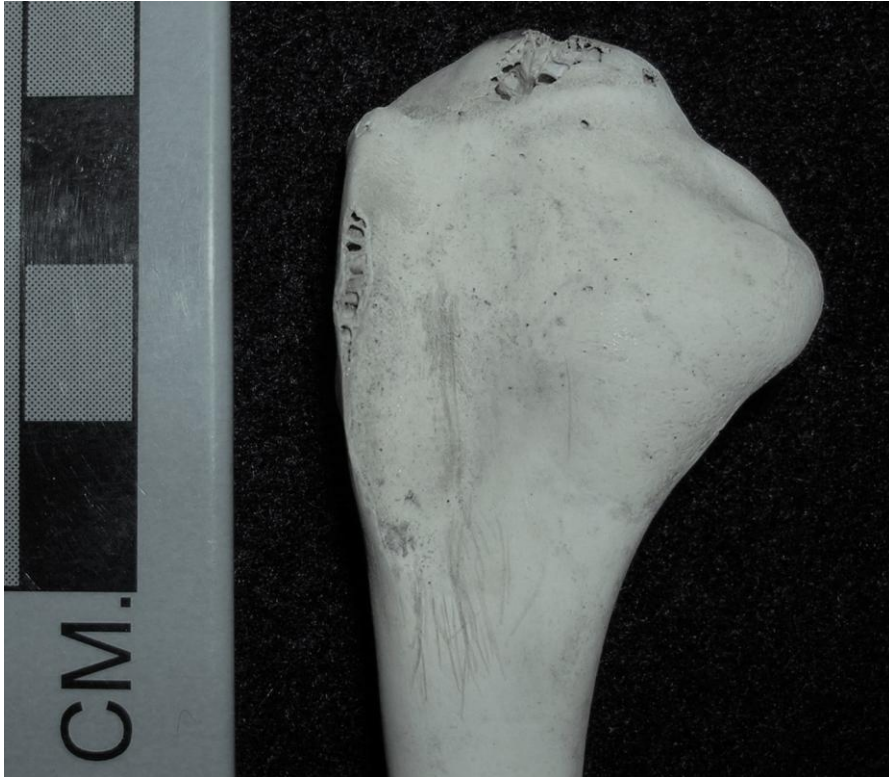
While it was cooler and wetter before 11,650 years ago near BER, rather dramatic climatic changes were on the horizon. By about 9,500 years ago (8,300 radiocarbon years ago), the longest period of relatively warm and dry climatic conditions gripped the Great Basin. This period, known as the Altithermal (named by Ernst Antevs in the 1930's and 1940's) and the Middle Holocene, was originally thought to have begun about 8,500 years ago (7,500 radiocarbon years ago). We now know that the Altithermal began at least 1,000 years before that; in fact, the changeover from the cool/moist vegetation and faunal patterns of the Late Pleistocene and Early Holocene to the warm/dry patterns of the Middle Holocene was generally complete by 9,500 years ago in the northern Great Basin. The Middle Holocene witnessed many changes in plant and animal distributions across the Great Basin. At BER, animals that were no longer hunted or collected during this dry period included sage grouse, katydids, mountain sheep, and bear. The hunting of larger animals such as pronghorn increased in importance, although jackrabbits continued to be hunted as well. Interestingly, bison shows up for the first time in the BER Middle Holocene deposits.



Katydid from the Late Pleistocene/Early Holocene layers at BER.



Sage grouse femora from the Late Pleistocene/Early Holocene at BER.



Sage grouse proximal humerus with numerous stone tool cut marks, BER.



Bison distal metatarsal from the Middle Holocene layers at BER.