Radiocarbon Dates, Hunter-Gatherer Population Growth, Climate Change, Warfare, and High Altitude Archaeology in Wyoming

Speaker: Dr. Robert Kelly, Professor of Archaeology, University of Wyoming

Host Department: Museum of Anthropological Archaeology

Date: 10/08/2015

Time: 12:00 pm

Location: Room 2009 Ruthven Museums Building

Description:

Although the data of archaeology seem poor relative to the richness of ethnographic data, they provide the longest of long-term data sets. Therefore, archaeology is necessary for the study of the long-term character and effects of human behavior. This paper uses radiocarbon date summed probability distributions to look at the 12,000 year record of hunter-gatherer population in the Rocky Mountains of the western U.S. in relation to climate change to provide a long-term perspective on hunter-gatherer demography and its relationship to warfare, resource selection, behavior. We find that over the long term foraging populations grow at slow rates (~0.04%), a finding duplicated by studies elsewhere in the world, and that periods of growth and decline are tightly linked to climate change. Population is probably regulated by the effects of women's diet and workload on fecundity. Population pressure plays a role in the changing uses of high altitude, "extreme" environments, and appears to be linked to warfare in a straightforward and expectable manner. We are now at work on a deeply-stratified rockshelter with a minimally 12,000 year record, to examine the relationship between climate, demography and human behavior at a high-resolution temporal scale.