Indigenous People in Utah Engaged in Cultural Burning of Forests 1100 Years Ago

by Daniel Carolan

05/20/2021

Conceptual diagram illustrating changing land use over the past 1200 years in the Basin-Plateau Region of south-central Utah. (Carter et al.)

New research has found that the Fremont people, an indigenous group of farmers, actively managed the forests of the Fish Lake Plateau in central Utah using fire. The frequent and low intensity fires they set resulted in an increased prevalence of edible plants and a decrease in the likelihood of massive wildfires due to the reduction of vegetation/fuels on the forest floor.

University of Utah’s Dr. Vachel Carter, alongside other researchers, including USU Department of Wildland Resources Assistant Professor Dr. Justin DeRose, found that the indigenous cultural burning virtually nullified the effect of the climate upon the wildfire regime. This is an especially profound finding given the present-day frequency of intense, climate and fuels driven wildfires in the American West.

By examining multiple variables, including “sedimentary archives, tree rings, and archeological data,” the group of researchers were able to chart out a broad history of fire on the landscape. The agricultural period of 900 to 1400 AD saw the most active use of cultural burnings. Farming was abandoned around 1400 AD in the Fish Lake region, and burning became less frequent after this period, but it was still used by indigenous foragers until being outlawed by the U.S. government at the turn of the 20th century.

The absence of cultural burnings, the widespread fire suppression of the past 100 years, and climate change have all created conditions on the ground that can lead to catastrophic wildfires, but this new work clearly points toward a human role in active forest management as a means to prevent these occurrences and to increase the productivity of forestlands.


Further reading, including commentary from Carter and DeRose:

Catastrophic Wildfires on the Fish Lake Plateau Reduced by Indigenous “Cultural Burning”

New Study Finds Indigenous People Used Fire To Manage Utah Forests Over 1000 Years Ago