

Proposed Title

SAND DUNE FIELD PALEOENVIRONMENT, PALEOECOLOGY, AND HUMAN ENVIRONMENTAL INTERACTION IN THE MIDDLE TANANA RIVER VALLEY NEAR THE GERSTLE RIVER, SUBARCTIC ALASKA: THE LATE GLACIAL TO THE MIDDLE HOLOCENE

Abstract

This study was conducted to outline paleoenvironmental change within the Gerstle-Sawmill Dune Field (GSDF), located just west of the Gerstle River in the middle Tanana River valley, Interior Alaska from the late Glacial to the middle Holocene. Specifically, this study was undertaken with regard to human-environment interaction on the landscape. Geoarchaeological methods were used in order to determine the history of sand dune development across the area, how the local ecological systems changed through time, and determine prehistoric human use of environment and response to environmental and ecological change as it occurred throughout the area. In turn, the data collected from these locations was used to create a model for local ecological stability and dynamic sand dune deposition with regard to human land use. Patterns of human land use within the GSDF were then compared against data collected from sites in proximity to the GSDF to determine how this portion of the environment operated within the larger geographic area. This geoarchaeological research will aid in understanding ecological patterning within terrestrial lowland systems from the Late Glacial to the Middle Holocene, with regard to human land use dynamics within a changing geomorphological system.