



Uncovering Prehistory at Lake Matcharak



NPS photo by Joe Keeney

Archaeologists at work on the Matcharak Peninsula Site, August 2013. This photo was taken about a week after excavations began. The string grid helps to guide the archaeologists on where to excavate and is used to map the exact location of each artifact that is found.

Human Occupations 7,000 Years Ago

From July 29 to August 17, 2013, NPS archaeologists Joe Keeney, Jillian Richie, and Caroline Ketron, along with volunteer archaeologists Sam Hutchins and Ryan Nordstrom, visited Lake Matcharak, a site along the Upper Noatak River in Gates of the Arctic National Preserve, to expand on subsurface tests from previous years. The Matcharak Peninsula Site (AMR-196) is located on a south-facing terrace, centered on a small peninsula along the southeast shore of the lake.

Keeney, a graduate student in the University of Alaska Fairbanks department of anthropology, led the team with the goal to collect data about the cultural materials buried beneath the surface and how the overlying sediments were deposited. The site is the focus of Keeney's master's thesis research, and the data will hopefully illustrate details about the people inhabiting the site in prehistory. Radiocarbon dates that are associated with stone tools

and well-preserved bone recovered from the site reflect human occupations to as early as around 7,000 years ago, making it significant as the largest collection of well-preserved faunal remains from this time period and the associated Northern Archaic technological tradition. Analysis of the artifacts from this site should shed light on life ways of these Arctic hunter-gatherers, how they subsisted at Lake Matcharak, when, and at what time of year.

Meticulous Sifting and Documenting Yields Results

During fieldwork, the archaeologists carefully and systematically dug through approximately 7 m³ of surface sediments. They precisely mapped over 500 bones, bone fragments, stone tools, and flakes (the waste material from manufacturing stone tools) using a total station, a laser-based surveying instrument. All dirt was sifted with a fine mesh to locate artifacts too small to be seen during excavation and each artifact was then carefully collected for later analysis. The first formal tools recovered from the site were found this summer, including the base of a side-notched point (a tool indicative of Northern Archaic technology), a microblade core, numerous

microblades, and utilized flake tools. All sediments were backfilled upon completion of the project to leave as little trace of the fieldwork as possible.

The Matcharak Peninsula Site (AMR-196) was originally identified in 2009 when NPS archaeologists discovered a 5,000 year-old caribou bone and evidence of stone tools. The site was then revisited in 2010 and 2011 for extended testing, resulting in over 600 bones, bone fragments, and stone tool flakes being recovered from approximately 6 m³ of excavated sediments.

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A conical microblade core discovered during excavations at the Matcharak Peninsula Site in 2013.



The 2013 archaeology crew at Lake Matcharak. From left are Ryan Nordstrom, Caroline Ketron, Sam Hutchins, Jillian Richie, and Joe Keeney.

For more information about the work being done at the Matcharak Peninsula Site, contact Archaeologist Joe Keeney at (907) 455-0634, or email him at Joseph_Keeney@nps.gov.

