

Bering land bridge grows younger

by Ned Rozell
special to the Tundra Times

Scientists envisioned the Bering land bridge as a dry grassland where animals grazed, attracting humans who may have migrated between what is now Alaska and Siberia.

A new study suggests the land bridge instead looked remarkably similar to the tundra hills and plains of today's Arctic Alaska. In the same study, Scott Elias, of the University of Colorado in Boulder, and his coworkers also found evidence that the land bridge was open for travel much more recently than previously thought. Elias' study was featured in the July 4, 1996, issue of *Nature*.

The Bering Land Bridge was a chunk of land more than twice the size of Texas, Elias said. He believes the entire west coast of Alaska was landlocked, from north of Barrow all the way south to the Aleutian chain.

The land bridge rose from the ocean thousands of years ago during the last ice age when the sea level dropped dramatically as glaciers took up water in the form of ice.

When Earth's climate got warmer, the ice melted, flooding the land bridge. The land bridge now lies under less than 800 feet of water, Elias said.

The discovery of ancient pollen grains led Elias and his colleagues to deduce that the land bridge was covered by tundra rather than grassland. The research team analyzed cores of ancient peat that were extracted from the sea floor on 20 sites in the Bering and Chukchi seas. They

found the same types of pollen that now float in the air of Arctic Alaska.

The prehistoric pollen was released by sedge tussocks, dwarf birch, willows, and other tundra plants.

Using radiocarbon-dating techniques, the scientists found the peat (the decayed remains of life on the land bridge) was above water as recently as 11,000 years ago. The new study follows one completed in the mid-1980s in which scientists dated sea-floor sediments from the land bridge and estimated its disappearance below the sea at 14,400 years ago.

Elias said the samples from that study were probably inaccurate because ancient coal particles within the peat skewed the radiocarbon dating results.

The peat samples and insect remains found in the cores also hint at the area's temperatures. Insects whose fossils were found in cores dated 11,000 years ago lived in a warmer climate than exists now in western Alaska, Elias said.

This warmth, coming just as the last ice age was ending, possibly led to the rise in sea level that closed the bridge.

If Elias is correct, all sorts of new creatures walked across Alaska much more recently than previously thought, and they walked on spongy tundra rather than dry grasslands.

Because tundra, the home of caribou and tussocks, is less productive than grassy steppe, Elias concluded large animals and humans probably didn't linger on the land bridge. They merely used it as a broad pathway; one that will remain closed until the next ice age.