THE IMPORTANCE OF RADIOCARBON DATES AND TEPHRA FOR DEVELOPING CHRONOLOGIES OF HOLOCENE ENVIRONMENTAL CHANGES FROM LAKE SEDIMENTS, NORTH FAR EAST

A.V. Lozhkin[1], T.A. Brown[2], P. M. Anderson[3], O.Yu. Glushkova[1], I.V. Melekestsev[4]

[1]Northeast Interdisciplinary Science Research Institute, Far East Branch Russian Academy of Sciences, Magadan 685000, Russia. Corresponding author. e-mail: lozhkin@neisri.ru

[2]Center for Accelerator Mass Spectrometry, Lawrence Livermore National Laboratory, Livermore, CA 94551, USA

[3]Earth & Space Sciences and Quaternary Research Center, University of Washington, Seattle, WA, 98195 USA

[4]Institute of Volcanology and Seismology, Far East Branch Russian Academy of Sciences, Petropavlovsk-Kamchatsky, 683006, Russia

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Developing continuous chronologies of paleoenvironmental change in northern areas of the Far East using ^{14}C can be problematic because of the low organic content in lake sediments. However, Holocene age-models can be supplemented by widespread tephra deposits reported in the Magadan region. The best documented of these tephras has been correlated to the KO tephra from southern Kamchatka dated to 7600 BP. Although a key chronostratigraphic marker, no detailed compendium of the distribution of this tephra and its associated ^{14}C dates has been available from sites in the northern Far East. We provide such a summary. Known locally as the Elikchan tephra, lake cores indicate an ash fall that extended ~1800 km north of the Kamchatkan caldera with a ~500 km wide trajectory in the Magadan region. Other Holocene tephras preserved in lake sediments have poorer age control and possibly date to ~2500 BP, ~2700 BP and ~6000 BP. These ashes seem to be restricted to coastal or near-coastal sites. A single record of a ~25,000 BP tephra has also been documented ~100 km to the northeast of Magadan.

Key words: **tephra, chronology, lake sediments, radiocarbon dates, Holocene, Far East of Russia.**