



Holocene climate change

Boreas virtual issue

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There is an increasing interest in climate reconstruction of the last few thousand years, particularly in the context of the rapid global temperature change during the 20th century. In many areas of the northern Hemisphere, the temperature during the last 100 years has been unprecedented for at least 2000 years including the Medieval Warm Period (also called the Medieval Thermal Anomaly). Similarly high temperatures have not been recorded since the Holocene Thermal Optimum at about 9000–6000 cal. yr BP. In order to distinguish natural climate variability from the anthropogenic influence, it is essential to study high resolution natural archives that capture decadal and centennial as well as millennial-scale climate variability.

The collection of articles in this **Virtual Special Issue** represents a series of studies of Holocene climatic change in the northern Hemisphere. As demonstrated in some of the articles, there is a close connection between the oceanic and the atmospheric climatic systems, and decadal to millennium-scale anomalies in the Holocene climate thus appear to be connected to changes in these systems and transport of heat to high latitudes.



The palaeo-archives in this issue come from a range of terrestrial and marine sites from Canada in the west over the northern North Atlantic to northwestern China in the east. A wide spectrum of Holocene proxy data is presented, covering sedimentological and biological data such as pollen, chironomids, diatoms, benthic and planktonic foraminifera and their stable isotopes, as well as peat bogs, sea-level studies, and morphological studies. This supra-regional and multi-proxy collection of studies contributes to our better understanding of the Holocene climate change at a global scale.

Karen Luise Knudsen

Jan A. Piotrowski