NORDIC SEAS CLIMATE VARIABILITY OVER THE PAST 2 MILLENNIA - A TROPICAL LINK

E. Jansen (1,2), A. Nesje (1,2), T. Furevik (1,3), C. Andersen (4), C. Andersson (1), N. Koç (4)

(1) Bjerknes Centre for Climate Research, Bergen, Norway, (2) Dept. of Geoscience, Univ. of Bergen, (3) Dept. of Geophysics, Univ. of Bergen, (4) Norwegian Polar Institute, Tromsø

eystein.jansen@geo.uib.no/Fax: +46-55584330

High resolution records of mean annual and summer temperatures over the past 2 millennia have been developed for the Nordic Seas and adjacent land areas with decadal resolution. A new high quality age model for these records has been developed using a novel tree-ring correlation. The data show a very strong land-ocean coherence. Correlation to instrumental time series is also strong. A remarkable correspondence with proxy records of the northward extent of the ITZC is apparent in the data, based on correlations to a rainfall/runoff proxy from Cariaco Basin off Venezuela. Further comparisons with long time series of North Atlantic indices based on instrumental data and proxy records are underway and will be reported. The strong tropical linkage is also noticeable in the instrumental time series, indicating possible tropical influence on decadal to century climate changes in the high latitude North Atlantic.