Geophysical Research Abstracts, Vol. 9, 06978, 2007
SRef-ID: 1607-7962/gra/EGU2007-A-06978

Solar variability and the North West European peat bog record

J.J. Blackford and M.R. Ellershaw
University of Manchester, UK.

Palaeoclimatic data from over 20 ombrotrophic bogs in Europe will be used to test the link between solar output and climatic change over the last 5,000 years. A combination of previously published and new data, all from sites with good radiocarbon and/or tephra chronologies, will be used to test the hypothesis of a major solar-driven climatic change at 2,650 BP, and more recent changes during the phases of the European 'little ice age'. Periodic changes in bog records will also be tested and compared to the proxy records of solar change on 10^2-10^3 year timescales. This review shows that the link is inconsistent, with some bogs being 'tuned' to solar change for some of the time. The solar-derived climatic changes in the region may be those that are shown most effectively in bog records- probably changes in summer precipitation. This could explain why peat bogs sometimes respond to solar changes apparently more obviously than other palaeoclimatic proxies