Geophysical Research Abstracts, Vol. 9, 05515, 2007

SRef-ID: 1607-7962/gra/EGU2007-A-05515 © European Geosciences Union 2007



Influence of annual climate variability in growth of oaks: a case study from French forets.

S. Durost (1,2), P. Ciais (3), J.L. Édouard (4), N. Etien (3), G. Lambert (1,2), G. Le Maire (3), V. Masson (3), M. Stievenard (3), M. Pierre (3)

(1) Laboratory of Chrono-Ecology, Besançon, France, (2) University of Franche-Comté, France, (3) Laboratory of Climate and Environment Sciences, Gif-sur-Yvette, France, (4) Mediterranean Institute of Ecology and Paleoecology, Aix-en-Provence, France

The ring-wdiths data over 400 years are available from 650 years old oaks of 32 French forests. They cover a large area roughly over the two thirds of northen France. Good correlations were found with references of bordering countries. Some geographical subdivisions can be made following some sets of charasteristic years. There exists clearly a spacial response in oak growth, at some periods, for relatively large aeras. This can be explained only by changes in extensions of climatic impacts.

We propose to examine the climatic signatures of ring-widths by comparing with the oxygen and carbon stable isotopes variations for several forests belonging to different aeras. For recent periods, we have a look on the influence of parameters observed through CRU and REMO studies.