**The Model 4C**

The model 4C ('FORESEE' - Forest Ecosystems in a Changing Environment) has been developed to describe long-term forest behaviour under changing environmental conditions. It describes processes on tree and stand level basing on findings from eco-physiological experiments, long term observations and physiological modelling.

The model includes descriptions of tree species composition, forest structure, total ecosystem carbon content as well as leaf area index. The model shares a number of features with gap models, which have often been used for the simulation of long-term forest development. Establishment, growth and mortality of tree cohorts are explicitly modelled on a patch on which horizontal homogeneity is assumed.