



Analyzing the phase statistics of phenological records: fluctuations and correlations with temperature

Diego Rybski, Anne Holsten, and Jürgen P. Kopp

Potsdam Institute for Climate Impact Research (PIK), 14412 Potsdam, Germany (diego.rybski@pik-potsdam.de)

Phenological timing - i.e. the course of annually recurring development stages in nature - is of particular interest since it can be understood as a proxy for the climate at a specific region; moreover changes in the so called phenological phases can be a direct consequence of climate change. We analyze records of botanical phenology and study their fluctuations which we find to depend on the seasons. In contrast to previous studies, where typically trends in the phenology of individual species are estimated, we consider the ensemble of all available phases and propose a phenological index that characterizes the influence of climate on the multitude of botanical species.