



Using phenology to communicate biological effects of climate change

Elisabeth Koch (1), Kjell Bolmgren (2), This Rutishauser (3), Thomas Hübner (1), Anita Jurkovic (1), Helfried Scheifinger (1), and Markus Ungersböck (1)

(1) Central Institute for Meteorology and Geodynamics, Climatology, Vienna, Austria (elisabeth.koch@zamg.ac.at; thomas.huebner@zamg.ac.at; anita.jurkovic@zamg.ac.at; helfried.scheifinger@zamg.ac.at; markus.ungersboeck@zamg.ac.at), (2) Swedish University of Agricultural Sciences, Stockholm, Sweden (Kjell.Bolmgren@slu.se), (3) University of Bern, Switzerland (rutis@giub.unibe.ch)

Phenology has come back to the center of interest, not only in research but also as a way to communicate effects of climate change to the public. The first and most obvious biological impacts of climate change was detected in the environment using long-term phenological data: “Phenology – the timing of seasonal activities of animals and plants – is perhaps the simplest process in which to track changes in the ecology of species in response to climate change” (IPCC 2007).

Organizations funded new phenological networks, long existing networks got new impetus. IPCC (2014), the European Environmental Agency EEA and many single countries have been publishing reports on climate change and CC impacts using phenological indicators. Networks communicate the outcome of monitoring efforts and data-analyses via both traditional and social media. As many of the phenological observers are citizen scientists the delivered data need quality control and the citizen scientist must be kept on track to get longer time series and qualitatively good network data sets.

In the end of March 2014 the team of PEP725 www.pep725.eu started a questionnaire among the global phenology community to get an overview on ways of communication, utilization of phenological indicators, data quality procedures and data analyses used. The evaluation of the questionnaire will be presented.

- 1) How do you communicate the “nature’s calendar” in your country?
- 2) Are governmental indicators used? If yes: what kind of indicators based on phenological observations or models are used?
- 3) Criteria for data cleaning/correction
- 4) Does it make sense to use/provide standardized analyses for phenological applications?