

A European phenological database, PEP725, www.pep725.eu

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“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). At the same time different species often respond differently to changing conditions, opening the question about effects of changed synchrony in ecological interactions.

PEP725, the Pan-European Phenological Database, is a European research infrastructure to promote and facilitate phenological research. Its main objective is to build up and maintain a European-wide phenological database with an open, unrestricted data access for science, research and education. So far, 27 European meteorological services and 7 partners from different phenological network operators have joined PEP725.

In most European countries, phenological observations have been carried out routinely for more than 50 years by different governmental and non-governmental organisations following different observation guidelines. Therefore, data is stored at different places in different formats. This has been hampering large-scale studies as one has to address many network operators to get access to the data before one could start to bring them in a uniform style.

www.pep725.eu has been developed to solve these problems by offering a single entry point to more than 11 900 000 phenological records, all of them classified according to the so called BBCH scale. The first datasets in PEP725 date back to 1868; however, there are only a few observations available until 1950. Having accepted the PEP725 data policy and finished the registration, the data download is quick and easy and can be done according to various criteria, e.g., by a specific plant or all data from one country.

www.pep725.eu also displays a map of near-realtime phenological observations from a few countries with real-time monitoring. Traditionally, phenological monitoring has not extended beyond national borders, but now PEP allows you to follow phenological events on www.pep725.eu in a real-time mode and, e.g., watch the “green wave” move from 46° N to the polar circle, that is, over more than 2500 km across Europe.

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