

Review ESSD-2019-101, Bern phenology data set

Thanks to authors for removing data access barriers. Data now downloads easily, looks very clean. Confirm 7414 data records.

Page 2 line 56: “suggest that the data different data sources are complementary” Something wrong with text here. You mean ‘data from different sources’ or instead ‘the different data sources’?

Page 4 line 109 (and Figures 4 and 5): daily data for fog and snow using these forms but those data not included in this data product? A bit confusing to read about daily winter data while not knowing how or where archived and how accessed. Authors do not need to show those data, but if they take the trouble to mention the daily observations and to show the forms, readers should learn at least how to access those data?

Page 4 line 121: “Each series was standardized” What does ‘standardized mean in this context? This refers to the assembly of stations by coordinates into a shared zip code? Or this means that each series underwent the 6 QC steps listed soon after? Some clarification, s.v.p.

Page 5 line 130: Again this word “standardized” now referring to DoY values. “standardized dates were restandardized”. What does this mean?

Page 6 line 178 to 182, discussion of future monitoring. Note the word “could’ on line 178! As observers (and, in some cases, trees) age out of the survey, will this record cease? Figure 7 suggests that those other networks will not retain the high spatial resolution of the Bern data? Line 179: here reader finds that winter data awaits analysis. That data not otherwise available? Analysis by whom, and when expected? Line 180: how would 50% blossom data prove relevant to leaf area or NDVI? Do the authors have specific examples? Not clear to this reviewer?

Figure 1: even though I know the region, the various subtle greyscale and sizes of dots on a grey background confuse this reader. Get the figure in colour, or change some symbol shapes (diamonds, stars) to better distinguish station types? Need a bold outline of canton Bern! If no page charges, and therefore no colour penalty, why not use a color background? Many exist.

Figure 2: this reader admires observer persistence and the long continuity of these records. But at some point the data become so few that they cease to provide a valid spatial representation. At what point? I believe others have addressed this question of minimum spatial requirements?

Figure 6: Presumably the bold black line represents these data? If so, designate in the figure legend. The inhomogeneity emerges when these data begin to show consistent later DoY date than all other five reference sites? The authors do not share nor propose an explanation for this inhomogeneity? Because I find location Wyssachen many times in the common beech data subset, I can not tell whether the authors flagged and removed this particular time series or retained it?

Figure 7: the colour scale shown with reference to circle data also applies to diamonds? If so, this figure confirms the 40-day advancement mentioned on page 5, line 158?