

Possible datasets for the paper:

1. PEP-725 data on *Betula pendula*. We should use this as it's used in the first classic paper on declining sensitivities. There are more many more sites (>1000 perhaps) for this species, and other species we can add, but the data gets a bit more diverse so we'd need to think more about the hierarchical model structure, which seemed beyond scope to me. But happy to discuss.
2. Cherry data – DC. Also seems good to use, especially given its poster child use by the media of spring marching ever forward.
3. Cherry data – Japanese data are available in the new rethinking package so I tracked them down there (used to explain splines): <http://atmenv.envi.osakafu-u.ac.jp/aono/kyophenotemp4/>. I like this dataset a lot given its longevity and as a complement to the shorter DC dataset.
4. More cherry data? There's definitely more of it, but not sure we want to go this way. If we do I can track down a few datasets.
5. Lilac data (<https://www.nature.com/articles/sdata201538>) – have not used but a famous dataset in phenology and should be fairly complete for a number of sites. These are all clonal lilacs so I suspect will behave similarly to cherry data. There is a Wang *et al.* 2018 paper ('Trends and Variability in Temperature Sensitivity of Lilac Flowering Phenology') using lilacs and showing declining sensitivities (but in Europe).
6. Hubbard Brook data (<https://portal.edirepository.org/nis/mapbrowse?scope=knb-lter-hbr&identifier=51>) which I believe is used in the paper, 'On quantifying the apparent temperature sensitivity of plant phenology' (<https://nph.onlinelibrary.wiley.com/doi/abs/10.1111/nph.16114>), which works on the issue of why temperature sensitivity may be a bad metric, but doesn't, to me, quite get it. Maybe a good choice for diversity of datasets?
7. Harvard Forest data (<https://harvardforest1.fas.harvard.edu/exist/apps/datasets/showData.html?id=HF003>), not used in any papers I know of on declining temperature sensitivity, but a classic commonly used dataset (that the lab uses a lot) so could be a good choice.
8. Mikesell data (<https://knb.ecoinformatics.org/view/wolkovich.33.3>) has not been used for declining sensitivities and all occurs well before climate change (though a couple cool years from Krakatoa) but is a classic in the field so could be a nice addition.

Datasets I am not suggesting exactly, but if you're really interested we can work on:

1. 'Variations in the temperature sensitivity of spring leaf phenology from 1978 to 2014 in Mudanjiang, China' (Dai *et al.* 2019, (<https://link.springer.com/article/10.1007/s00484-017-1489-8>)) finds increasing and declining sensitivities, but I don't know the dataset or access to it. I can look into it.

2. Lots of papers on declining sensitivity now use NDVI – this is remotely sensed phenology (e.g., <https://onlinelibrary.wiley.com/doi/epdf/10.1111/gcb.15200> or <https://www.nature.com/articles/nclimate3277>) which I have never used so I am not sure of starting to use it here, but can look into it if you're really interested. Otherwise I'd prefer to stick with ground observations, which I know and understand well.
3. Primack-Thoreau data – I have used these data and they feel 'cleaned' to me, if you will, so I have since stopped using them.