Date of study

Fall 2015 - July 2017 (referred to as 'original'); data updated in Summer 2019 (update2019)

Date of Public Archiving:

July 2019 (published budburst data with updating later, see below)

Last modified:

13 February 2025 (before: 30 November 2023; 5 January 2021)

Goal

Quantitative review of literature on environmental control of spring phenology in woody plants, with a focus on addressing the relative strength of photoperiod to temperature control of budburst, as well as length and intensity of winter chilling.

Contributors

Elizabeth Wolkovich - e.wolkovich@ubc.ca

Ailene Ettinger - aettinger@fas.harvard.edu

Catherine Chamberlain - cchamberlain@g.harvard.edu

Daniel Buonaiuto - dbuonaiuto@g.harvard.edu

Ignacio Morales-Castilla - moralescastilla@fas.harvard.edu

Deirdre Loughnan - deirdre.loughnan@gmail.com

Darwin Sodhi - darwin193@live.com

Mira Garner - mira.garner@gmail.com

Geoff Legault - glegau01@mail.ubc.ca

Faith Jones - fjones01@mail.ubc.ca

Other collaborators (alphabetical): Dan Flynn, Jehane Samaha, Tim Savas

Dan Flynn - flynn@fas.harvard.edu

General Files

File	Where	What
Overview	Github	Overview of project, general goals and analyses, authorship, etc.
Methods	<u>Github</u>	Some basic info in the earlywriting and more exact info here
Task list	Github to do list Github issues Wiki	To-do list for analysis work, data processing, and paper writing

Data and Code

Github https://github.com/lizzieinvancouver/ospree

W drive: WeldShare > Wolkovich Lab > Budburst Review **External hard drive** (Mac formatted) OSPREE climate

Published data (Budburst data only, with chilling) Elizabeth Wolkovich, Ailene Ettinger, Daniel Flynn, Tim Savas, Catherine Chamberlain, et al. 2019. Observed Spring Phenology Responses in Experimental Environments (OSPREE). Knowledge Network for Biocomplexity.

doi:10.5063/F1CZ35KB.https://knb.ecoinformatics.org/view/doi%3A10.5063%2FF1CZ35KB We published on knb the following version: ospree_clean_withchill_BB.csv, with some extraneous columns removed. Code used to create this slightly modified version is here (bbculdesac/docs/budburst/code for knb optionB Used) on GitHub.

We have continued to update the KNB data posting! Most recently in fall 2023, we included new files for Nacho's phylogeny ms.

The citation as of February 2025 is: Elizabeth Wolkovich, Ailene Ettinger, Daniel Flynn, Tim Savas, Catherine Chamberlain, Daniel Buonaiuto, Jehane Samaha, & Ignacio Morales-Castilla. (2019). *Observed Spring Phenology Responses in Experimental Environments (OSPREE)*. Knowledge Network for Biocomplexity. doi:10.5063/F18P5XZF.

And Nacho published code (and datafile that goes with the code) for the phyloms (Morales-Castilla *et al.* 2024, *Nature Climate Change*) on Zenodo: https://zenodo.org/records/10902899

As of February 2025: I am not updating the below files (and not sure when we last did, same for General Files above).

File	Where	What
Master dataset: ospree.csv	Github: analyses/input	Raw phenology records from experiments in csv format; needs cleaning (over 12k rows in original database; update is over 16k rows)
General cleaning files	Github: analyses/cleaning	Set of scripts to clean data centralized and called from cleanmerge_all.R
Creates chilling data and does a good deal of cleaning along the way	Github: analyses/chilling	Scripts to pull climate data for chilling, and cleans a lot related to chilling while doing this
Cleaning files for budburst analyses	Github: analyses/bb_analyses/cleani ng	Set of scripts to clean data for budburst analyses centralized and called from bb_cleanmerge_all.R
Climate data	W Share: Wolkovich lab > Budburst Review > Ospree >	.nc formatted files with climatic data for NAm and

	climate data	Europe (>108Gb) See below for notes file on where these climate data come from
notes/dailyclimatedata.txt	Github: notes/dailyclimatedata.txt	.txt file describing where to download our climate data for Europe and North America. Includes information on 2019 update and information on past data used for previous manuscripts
ospree_clean.csv	Github: analyses/output	Cleaned phenology records
Budburst models	Github: analyses/bb_analysis	Stan and rstanarm models for days to budburst analyses

Also known as: **OSPREE** - Observed Spring Phenology Responses in Éxperimental Environments