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Goal

Meta-analysis using long-term phenology data testing for global changes in species synchrony across functional groups.

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General Files

Files	Where	What
README.txt	Github	Outline of repo and experimental aims
Synchrony_hypotheses.tex	Github /notes/	Outline of hypotheses
Synchrony_data/	Github /Input/	Folder of individual synchrony data files that are sourced in the main model code

Data and Code

Github

<https://github.com/DeirdreLoughnan/Synchrony>

https://github.com/DeirdreLoughnan/Synchrony_data

Files	Where	What
Rcode	Github:	R code for running models and cleaning data
Input	Github:	Data files called in running

		model
Cohen	Github: Input/Cohen	Datafile from Cohen et al. 2018
Heather	Github: Input/Heather	Datafile from Kharouba et al. 2018
Newdata	Github: Input/Newdata	Datafiles for new scraped data/Dryad
RISData	Github: Input/RISData	RIS moth and aphid data
Thackeray	Github: Input/Thackeray	A subset of the data from Thackeray et al. 2016
cleaningcode	Github: Input/cleaningcode	Code to clean newscraped/Dryad data
Stan	Github: Stan	Stan code
notes	Github: Synchrony	Thoughts and outlines
combiningallphenodata.R	Github: Synchrony/Rcode	Merging all the phenology data from 3 meta-analyses and new studies
getting_worldclim_data.R	Github: Synchrony/Rcode	Code to get worldclim data
generate_data_whinge.R	Github: Synchrony/Rcode	Generating test data with a hinge
generate_data.R	Github: Synchrony/Rcode	Generating test data
ggtree_plotting.R	Github: Synchrony/Rcode	Code to make phylogeny fig
Latitudinal_model.R	Github: Synchrony/Rcode	Latitudinal analyses
manuscriptValues.R	Github: Synchrony/Rcode	File generating referenced values in manuscript
modeling_plotting.R	Github: Synchrony/Rcode	Plotting code for ms
null_model_plotting.R	Github: Synchrony/Rcode	Null model code and plots
phylogeny_final.R	Github: Synchrony/Rcode	Main model code
phylogeny_groups.R	Github: Synchrony/Rcode	Main model for 4 common groups

poc_genquanblock.R	Github: Synchrony/Rcode	Testing whether different code for generated quantities blocks do differ
simdata_twospint.R	Github: Synchrony/Rcode	Code for testing for trends in multi sp interactions
simdata_twoSpint_terraqu.R	Github: Synchrony/Rcode	Code for testing for trends in multi sp interactions grouped by terrestrial or aquatic species
singlesp_analysis_generated_ata.R	Github: Synchrony/Rcode	Code for running stan model on generated data
singlesp_analysis_realdata.R	Github: Synchrony/Rcode	Code for running stan model on real data
table_synch_source.R	Github: Synchrony/Rcode	Generating table of data sources for manuscript
singlesp_analysis_realdata_covmat.R	Github: Synchrony/Rcode	Code for running stan model on real data and testing the covariance matrix
worldClimSlopesContinents.R	Github: Synchrony/Rcode	Code for running climate models for 12 and 3 month climate data for each continent
dat_fin_Dec2021_w_neg_mod.csv	Github: Synchrony/Input	A csv file of all the synchrony data to date merged together
synchronyTree.tre	Github: Synchrony/Input	Phylogeny of all species
taxonlvl_spname.csv	Github: Synchrony/Input	Taxonomic information for each species
twelve_month_mean_clim_in_divlatlong.csv	Github: Synchrony/Input	Climate data for each site, 12 month mean values
same3_month_mean_clim_in_divlatlong.csv	Github: Synchrony/Input	Climate data for each site, 3 month mean values

singlesp_randslopes_wcov.stan	Github: Synchrony/Stan	Stan code with covariance matrix, random slopes, random intercepts
singlesp_randslopes.stan	Github: Synchrony/Stan	Stan code with random only
singlesp_randslopesint.stan	Github: Synchrony/Stan	Stan code with random slopes, random intercepts
slopeTempSimplest.stan	Github: Synchrony/Stan	Stan code for estimating temperature slopes for 12 and 3 month climate means
phylogeny_synchrony_cholesky_mainMdl.stan	Github: Synchrony/Stan	Stan final model: phylogeny
Modelpres_Aug42020.tex	Github: Synchrony/notes	Making slides to present at bayes class
Synch_model_breakdown_No v2018	Github: Synchrony/notes	Scan of model outline from Lizzie
Thoughts_on_analysis.rtf	Github: Synchrony/notes	Random notes and thoughts



Notes on publishing data: We aim to publish as much data as possible, but require the permission of Thackeray, Cohen and Kharouba. At a minimum, we will publish the scraped data from the 16 Cohen papers DL scraped and the new interaction data DL scraped.