Synchrony model progress & update

October 20, 2020

A quick reminder of the project goals and questions:

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    - To compare findings with those of Thackeray and Cohen, I am analyzing the data as single species using a simpler model

2. Are the observed trends in shifts in interactions similar using data from single-species studies, or should we be using biologically relevant paired species data?

Progress to date:

1. Finished working with test data

2. Ran model on Kharouba 2018 data and it worked!
    - Worked on classifying and grouping data of different phenophases

3. Working on adding covariance matrix to model

4. Testing model on more data
    - Ran model on a subset to the Cohen data

5. Starting to think about how to answer question 2

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A. Classifying and grouping synchrony data across studies

Grouping	Original phenophase
Reproduction	Mating Flowering onset Weaning Spawning Hatching Egg laying Nest formation 50% caribou births
First appearance	First arrival Median arrival migration Beginning of frass
Population growth	Start of growth Budburst Mean Seasonal onset metrics Mid chick rearing End of shoot growth
Abundance	Spring bloom peak Juvenile start of bloom Peak date Peak half-fall date Start of abundance Peak ovigerous females Biomass peak 10% cumulative density
Senescence	Summer decrease Decline
Switch date	

B. Ran model on a subset to the Cohen data

To follow along with the code:

Rcode:
Projects/Deirdre/rcode/singlesp_analysis_realdata.R

Stan model:
Projects/Deirdre/stan/singlesp_randslopes_goo.stan