**Pheno-Demo: datasets and potential questions**

**RMBL LTREB Datasets**

Flower/fruit phenology and demography (to varying degrees) for individually marked plants of three long-lived perennial herbs: Delphinium nattalianam (DENU), Lupinus bakeri (LUBA), Erigeron speciosus (ERSP)

* For DENU and LUBA
  + 2019-2024 (6 years, 5 transitions)
  + Multiple transects, but only one site per species (different sites for the two species); DENU = 2 1X10m transects, LUBA = 4 2X10 m transects
  + Data
    - X,Y location
    - Survival/recruitment (was a plant new, did it survive or die since previous year) once per year
    - Number of flowers 2 or 3 times/week
    - Plant size once per year
    - Aborted flowers or stalks once per year
    - Browsing by mammals noted when seen
* For ERSP
  + 2019-2023 (5 years, 4 transitions)
  + 4 transects, 2 each at two different sites
  + Data
    - X,Y location
    - Survival, which was 100% and recruitment which was 0%
    - Number of flowers 2 or 3 times/week
    - Plant size once/year
    - Aborted flowers once per year
    - Browsing noted when seen

**Questions**

* Does synchrony of an individual’s flowering with the rest of the population influence individual seed set (was an REU project Lauren someone, FSU student)
* Are there correlations between individual phenology and growth and survival within or across years
* Are differences in fruit set linked to differences among individuals in phenological responsiveness (i.e. reaction norm slopes) or average phenology (i.e. reaction norm intercepts) within or across years.