

## Assignment 1: Replicating model results

Due: **Sunday, February 7, 2021**

Find a published population dynamics paper with a mathematical recursion equation (or equations, if you feel ambitious). This could be a paper in epidemiology, community ecology, evolutionary biology, etc. Code up the model in that paper in R and recreate one of their model results figures or, if they do not have compelling figures (or if you just want to), create your own new figure using their model. In either case, verify that your results make sense (even if you are simply recreating an existing figure).

You are welcome to send me your candidate paper (via DM in Slack) if you would like me to ok it.

Working through workshops 1-4 in their entirety before completing this assignment will likely help you a great deal.

To be included in your submitted assignment:

- A short background explaining the model.
- The figure(s) you have (re)created (if its helpful, you may make more than 1).
- R script, so that I can run the code on my own machine. No RStudio projects - .R scripts only!

Assignment and R script to be uploaded to Canvas.

### Rubric

1. Background and model description [**5 points**]
2. Did you effectively recreate and validate their results? [**10 points**]
3. Quality of your figure/graph [**5 points**]
4. Quality of your R code [**5 points**]  
*Annotated, readable, and “general” organization.*