BIO-MODEL

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MODEL

- Simulates populations of organisms through generations (semelparous and iteroparous organisms)
- Regulates reproduction, migration, and death
- Regulates a specific gene (allele) in the population
- Parameters: Generation, Species Number, Allele frequency, Habitat Number, Carrying Capacity, Mutation Rate, Migration Rate, Reproductive Number, Reproductive Rate, Proportion of Females, Benefits and loss caused by the gene

Interface

- Buttons for some of those parameters (those that stay the same throughout generations)
- Display Style (haven’t decided yet)
- Show some graphs (on separate tabs) (optional)
- Display outputs (population number) (gene frequency)

Some future goals

- There are a lot of models for ecology. Right now we are trying to build a model about species competition. Later we can add more models to the project if we have time
- The model can have more parameters and be really flexible
- Better display style and user interface than the one we are trying to build right now
- The model may be used for some research projects