

BIO-MODEL FOR PROFESSOR FREEDBERG

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Project Idea:

We are planning to do a bio-model for Professor Freedberg from the Biology Department. The model simulates a population of semelparous organisms, regulates their reproduction, death and migration, and show how genes can spread throughout the population or make the population extinct. Professor Freedberg requests an interface with the model so that students from his future bio classes can easily manipulate the parameters.

Parts:

- The bio-model, including parameters like population size, habitat numbers, genes, reproduction rate, migration rate, etc.
- An interface that allows students to easily change the model parameters. Maybe some graphics (either graphs from R or directly from C++?)
- Add some more parameters that can be used to do research projects. More job with cannibalism genes and altruism genes.