

Tasks to begin in Class 4. For these tasks, use the version that is in the folder BlueFender1.

Task 14:

What would you need to have in order to determine where (which patch) a butterfly started in? How would you do it (this is too involved to actually do it right now).

Task 15:

In this butterfly model, what is the qualitative difference between the variables `CurrentDirection` and `DistanceTravelled`? In other words, how is each being used in the model? Between `PopulationSize` and `nInitial`?

Task 16:

Eventually, you will realize that certain ways of doing something in SELES run faster than others. This doesn't matter at the moment, but it will later. Basically, the more times you have to run something, the longer it will take. Please describe 2 ways to have each butterfly die at a certain randomly generated age. i.e., given that the average lifetime of a butterfly is 2100 moves, how can we do this in two different ways? Which is faster?

Task 17:

Add Reproduction to the simulation.

The rules:

When *Time* is 1000, have each butterfly reproduce with the following probabilities:

- 0 new adults: 0.5

- 1 new adults: 0.2

- 2 new adults: 0.2

- 3 new adults: 0.1