

Practical 4:

1 – Calculate the effective population size of a population (known to have a generation time of 5 years) using the given data set.

This data set is composed by mitochondrial DNA with a known mutation rate of 0.001 mut/loc/gen. The effective population size is known to be between 0 and 50000 individuals. Simulate 100000 data sets and use a tolerance of 1% (0.01).

2 – Calculate the mode and the credible intervals of the posterior distribution.

3 – Check if the chosen model fits the data set.