**Genetic drift program flow chart**

Randomly choose alleles from the previous population to equal the new population size

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**Number of generations**

Input population size, number of generations, number of alleles and Tag name

Generate a new population matrix

Randomly generate an initial population

Is the new population matrix empty?

Yes

Calculate the proportion of each allele

No

Calculate and generate a final proportion of each allele at each generation

Randomly generate proportion of the population lost due to bottle neck or founders effect

Proportion matrix

Generate a new population size based on the proportion lost

**Fixation stat program flow chart**

Input number of generations, alleles, repetitions and tag name

Draw a bar chart of the mean fixation time against population size

Proportion matrix

Find the fixation generation

Calculate the mean fixation time and its standard error

No

**X 4**

Yes

**Number of repetitions**

Run Genetic drift

User data = 0

Get the user data of tag name