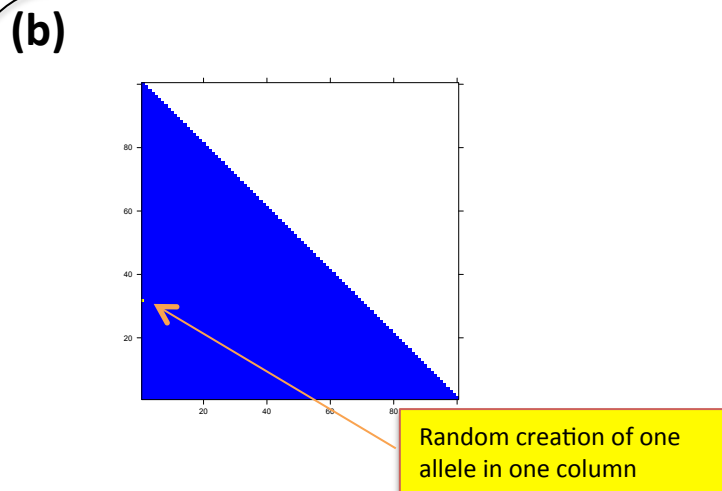


Distribution of individuals in the niche.  
All individuals have the allele "0" (neutral).

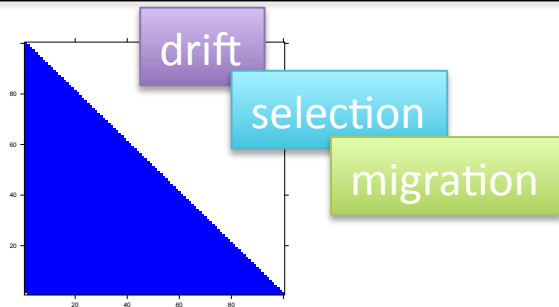
Next step → (b)



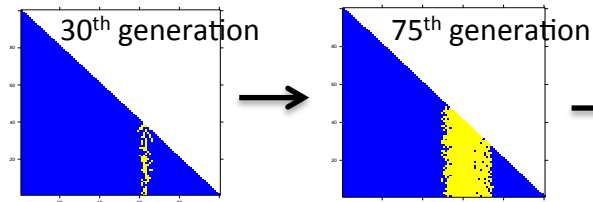
Random creation of the allele "1" (adaptive or neutral) in one chosen column (at the beginning, the column is the first on the left).

Next step → (c)

(c)

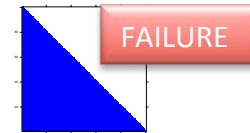


At each generation the allele evolves under drift, selection and migration processes



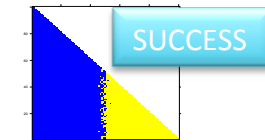
2 possibilities

loss of the allele



(d)

reach the 1000<sup>th</sup> generation



(e)

(d)

3 possibilities

Try another time and run the exact same simulation on the same column. Add 1 to the try counter (try=1 at the first round)

(a)

If the try counter equals 100. Create the allele "1" in the next column (to the right).

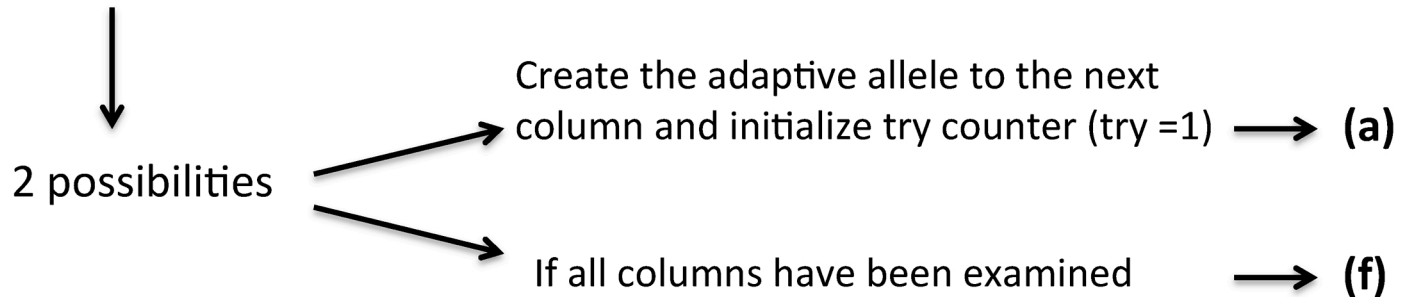
(a)

If the try counter equals 100 and all columns have been examined

(f)

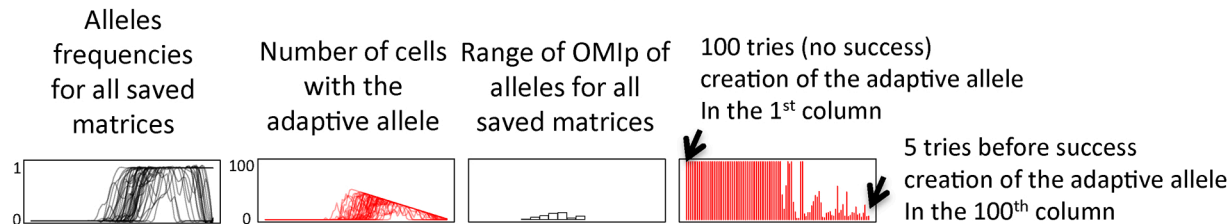
**(e)**

Save the matrix and the  
try counter (try=1 at the first round)



**(f)**

Plot the results summarized for all matrices at the same time  
(shown in Figure S11)



**Figure S10. Workflow of theoretical model and explanations concerning the functioning of the code available in File S2.**