

B.M.A. College, Baheri, Darbhanga

Dr. Mahesh Prasad Yadav

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Dept. of Zoology  
Subject - Biology  
class - XII

Topic: Evolution"NEO-DARWINISM"

Darwinism was modified on the basis of experiment of steffins, Weismann securall, Mayer, Dabzhansky and Deveries.

- ① Rapid multiplication (our production)
- ② Limited resources
- ③ Struggle for existence
- ④ Genetic variations
- ⑤ Natural selection
- ⑥ Isolation :- population segregation due to physical barriers

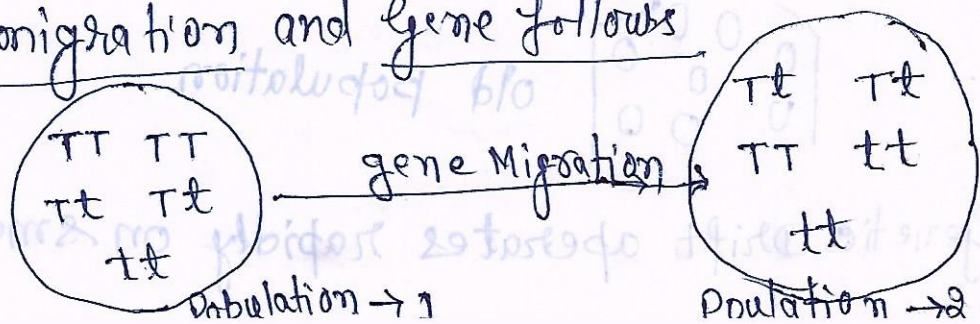
Sources of genetic variation :-

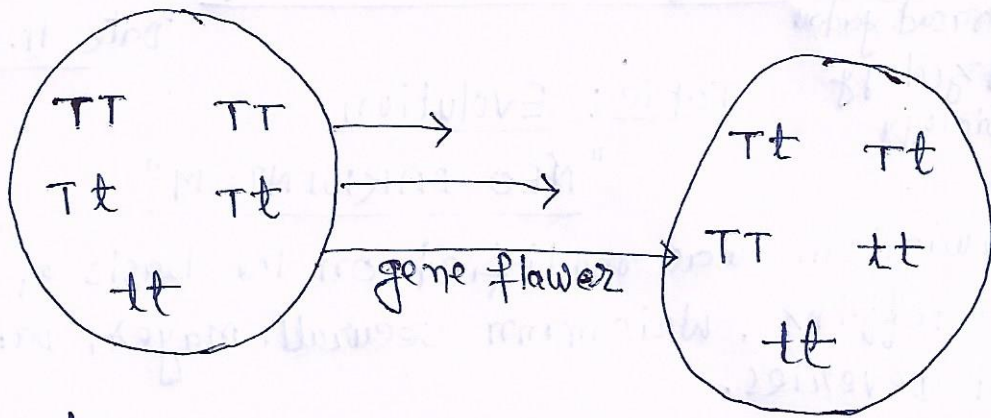
Gene Recombination :-  
crossing over during Meiosis

Mutations :-  
discontinuous but ultimate source of -  
- variation

Hybridization :-  
cross between two genetically different individuals.

Gene migration and Gene follows



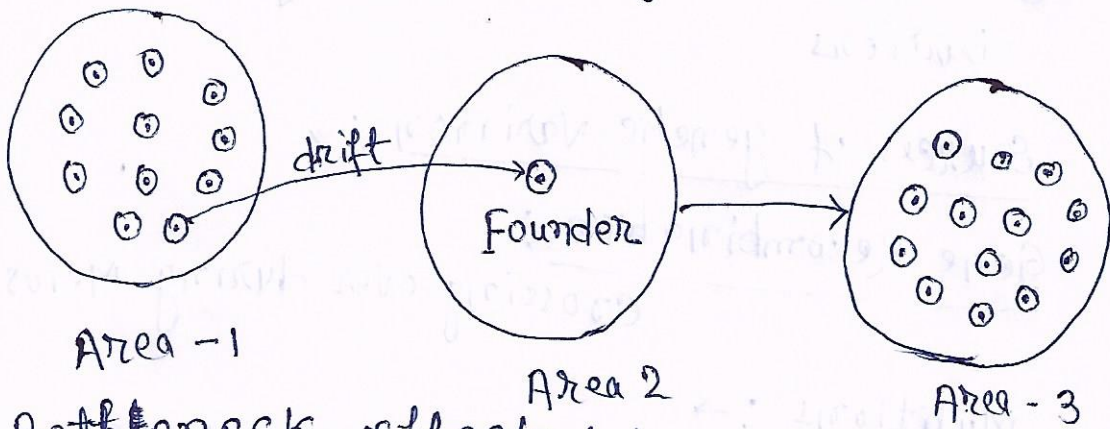


It changes the gene pool / Allelic frequency  
Genetic Drift : →

By chance ~~change~~ change in gene pool / Allelic frequency

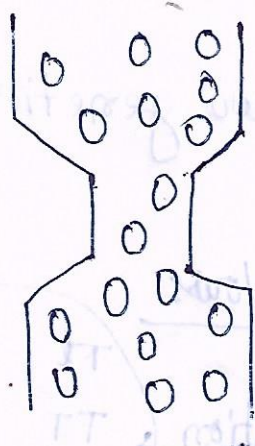
(i) Founder effect : →

geographical isolation  
 e.g. Darwin finches



(ii) Bottleneck effect : →

geographical isolation x  
 eg:- cheetah population



New population

Bottleneck → Jarkey event that reduces population

old population

\* Genetic Drift operates rapidly on small population.