KHAIRA COLLEGE , KHAIRA, BALASORE

DEPARTMENT OF ZOOLOGY

YEAR	NAME OF THE SEMINAR	NO. OF PARTICIPANTS	DATE
2022-23	Genetic Drift and its Consequences	60	27.7.2022

Departmental Seminar topic '***Genetic Drift and its Consequences*** ' held on 27.07.22 , 11am at CFH under the Presidentshif of Principal, Chief Speaker Dr. Kalpana Kumari Mohapatra , Reader in Zoology, U.N College ,Soro, and Staff members , Honours students .

Genetic Drift is the process of change in the frequency of an existing gene variant in a population . It is also called Allelic shift . The allele frequency changes in genetic drift are random. It occurs when population size plummets, either due to migration , natural disaster or geographical barrier that isolates small pockets of population resulting its consequences to human behavior .In population genetics, the Founder effect is the loss of genetic variation that occurs when a new population is established by a very small number of individuals from a larger population.As a result of the loss of genetic variation, the new population may be distinctively different, both genotypically and phenotypically, from the parent population from which it is derived. In extreme cases, the founder effect is thought to lead to the speciation and subsequent evolution of new species. Amplification of certain allele increased the frequencies like different diseases Breast cancer, Gaucher Disease, Tay –sachs disease , Familial dysautomia, Cartilage hair hypoplasia etc. A Bottle Neck Effect is a sharp reduction in the size of population due to natural disasters, diseases .Such events can reduce the variation in the gene pool of a population with a smaller genetic diversity, remains to pass on genes to future generation. The genetic drift caused by a population bottleneck can change the proportional random distribution of alleles and even lead to loss of alleles. The chances of inbreeding and genetic homogeneity can increase, possibly leading to inbreeding depression. Smaller population size can also cause deleterious mutations to accumulate. Population bottlenecks play an important role in conservation biology .Scientists have witnessed population bottlenecks in American bison, greater prairie chickens, northern elephant seals, golden hamsters, and cheetahs. The New Zealand black robins experienced a bottleneck of five individuals, all descendants of a single female. The topic is very interesting and questions arrived are discussed. Lastly the vote of thanks given by +3 3rd year student .