

PRESENT DAY EVOLUTION

BY :

AHAISIWE BIRUNGI SENIOR FIVE.

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INTRODUCTION

EVOLUTION

This refers to how new species arise from pre-existing ones over a period of time. It occurs to ensure continued survival of species from one generation to another. There are some theories and evidences that evolution occurs. Some theories include:

THEORY OF DAWINISM

LARMARK' THEORY

EXAMPLES OF EVOLUTION TODAY

Resistance to pesticides

Today after the application of pesticides, instead of eliminating pests, they flourish in large numbers. This is due to chance mutation.

Heavy metal tolerance:

Some plants have evolved to withstand highly polluted soils and can not grow in black loamy soils thus have evolved to live in such areas.

Industrial melanism :

This is the increase in the number of melanin papered moth and decrease of the non papered melanin forms due to deposition of soot on tree trunks and other back grounds .This allowed the melanin forms to blend perfectly with its back ground hence not easily preyed upon .This resulted in there evolution .

Resistance to anti- biotic

Drugs by bacteria: they have got influx pumps that continue pumping drug out of the body. Also after application of antibiotics, due to chance mutation , some are not killed .In presence of limited competition, they flourish in large numbers 'resulting in evolution of new species.

HOW EVOLUTION OCCURS

By mutations

This changes the structure of genes and causes inheritable variations. On reproduction, these variations are passed to the next generation, selection pressure acts on those. Organisms well adapted survive and their genes are passed to the next generation.

Selection

This is related to selection pressure.

Random mating

This gives equal opportunities to genes to be passed to the next generation

Genetic drift

This is the increase or decrease in allele frequency by chance not by natural selection .

Variation

The role of variation in evolution. Some variations are lethal and organisms possessing them do not survive. Others hinder successful sexual reproduction.

Gene flow

This is the introduction of new genes in a population through migration or immigration .

CONCLUSION

Evolution must occur to ensure continued survival of species. Otherwise ,if the reverse occurs, in presence of unfavorable environmental conditions, selection pressure selects against those organisms thus weeding them out resulting in extinction of species.

COMMENTS!