

Birth Rate / NATIVITY %
It refers to the no. of offsprings produced / added to the current population per unit time.

Death Rate / MORTALITY %

Biotic Potential:
Population has an inherent power to grow in exponentially if the environment is favourable. Resources are available in excess.

Term given by: CHROMAL

$$B.P. = B.R. - D.R.$$

VITAL INDEX %
$$= \frac{B.R. \times 100}{D.R.}$$

Carrying Capacity:
It is the max. no. of individuals of a population which can be provided all necessary requirements for max. biotic potential.

$$\frac{dN}{dt} = rN \left[\frac{K-N}{K} \right]$$

It is a logistic growth model.

In a given habitat, during a given period, the density of population fluctuates due to changes in following basic processes.

- Natality
- Mortality
- Emigration
- Immigration

$$\text{Population density} = [(B+I) - (D+E)]$$

POPULATION INTERACTIONS

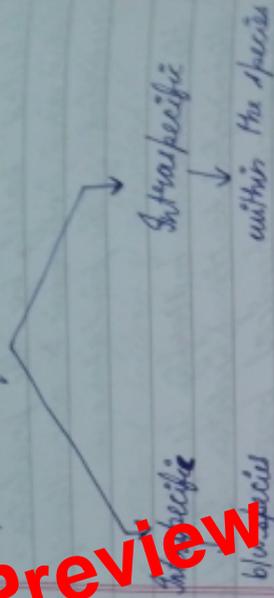
(1) PREDATION:

Besides acting as predators, some animals transfer across trophic level. Predators play other imp. role also. They keep prey pop. under control.

EXAMPLES:

- (a) When certain exotic species are introduced into a geographical area, they become invasive and start spreading fast because the invaded land doesn't

Competition is of two types :



Intraspecific comp. is for food, spaces & mates. (among members of the same species).

Interspecific comp. :

In this diversity of comp. depends upon similarity in requirement of food & shelter. Every type of organism has a particular niche.

No two types of organisms can have the same niche.

One of the two is eliminated.

This phenomena is called Gause Competition Exclusion.

It states that an ecological niche cannot be simultaneously & completely occupied by established pop. of more than one species.

Parasitism

by host bird & ejecting them from the nest.
e.g. Kestrel gives their egg in the nest of a crow.

Parasitism is further of two types

1. External parasites are those which are completely dependent on the host for all their requirements.
e.g. Lice, Ticks & Fleas.

2. Internal parasites are those which receive a part of nourishment from the host while the rest is manufactured by them.
e.g. Tapeworms & Amoebae.

Stem & root parasites:

Stem:
e.g. Cuscuta, Loranthus, Viscum

Root:
Rafflesia

Preview from Notesale.co.uk
Page 21 of 25