

Population Growth

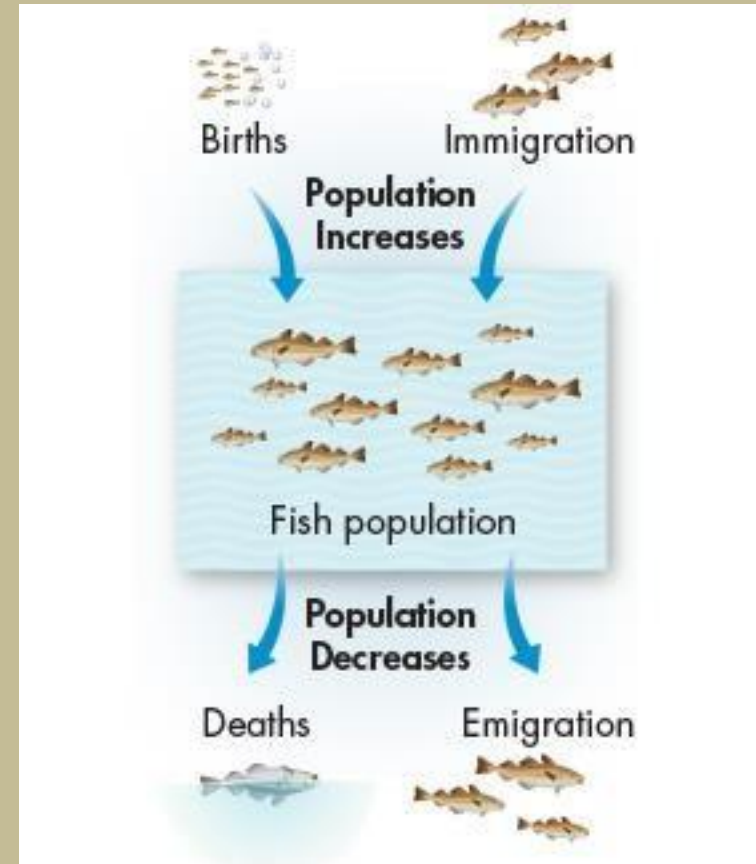
Dr. T.S. Pathan

**Department of Zoology,
Kalikadevi Arts, Commerce and Science
College, Shirur Kasar Dist.Beed**

Population Growth

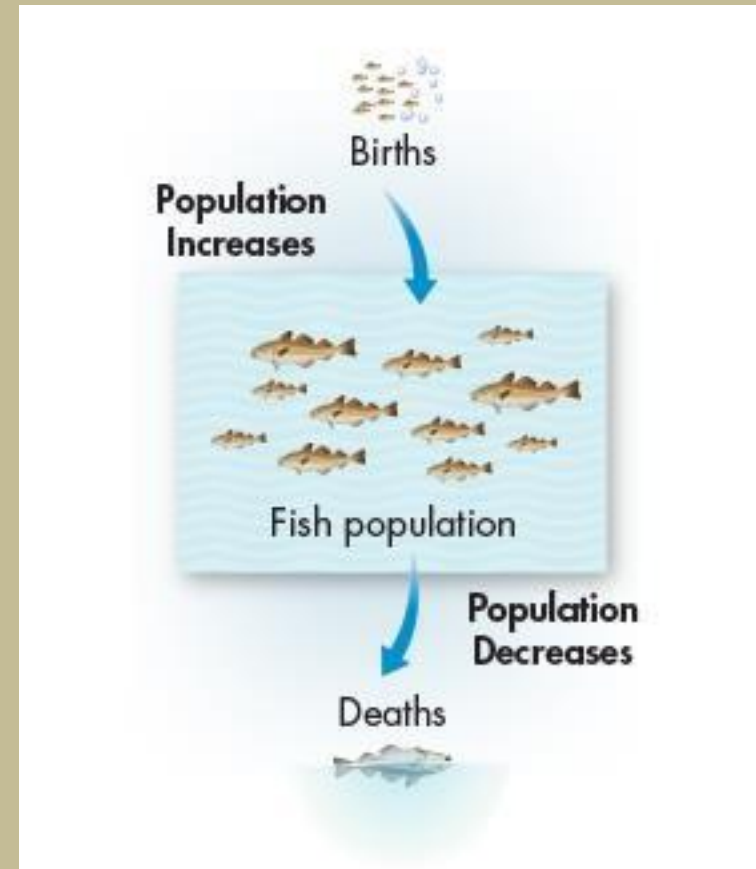
2 factors that can affect population size:

1. Birthrate and death rate and
2. the rate of immigration and emigration.



1. Birthrate and Death Rate

- Populations **grows** when *birthrate > death rate*.
- Population stays the **same size** if the birthrate = death rate
- Populations **shrinks** when *birthrate < death rate*.



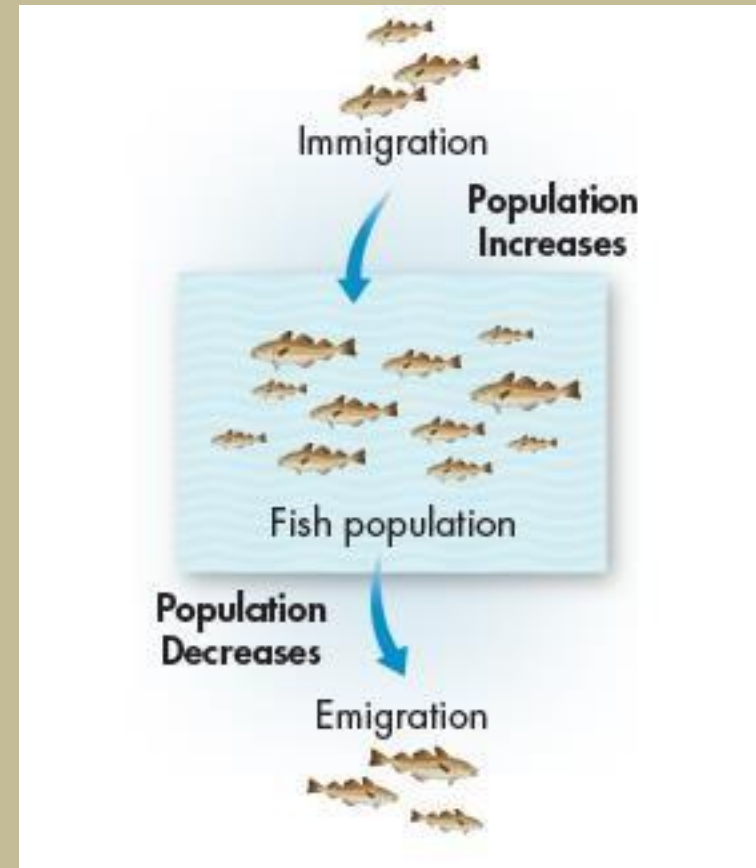
2. Immigration and Emigration

Immigration (Move into)

→ population grows

emigration (Move out of)

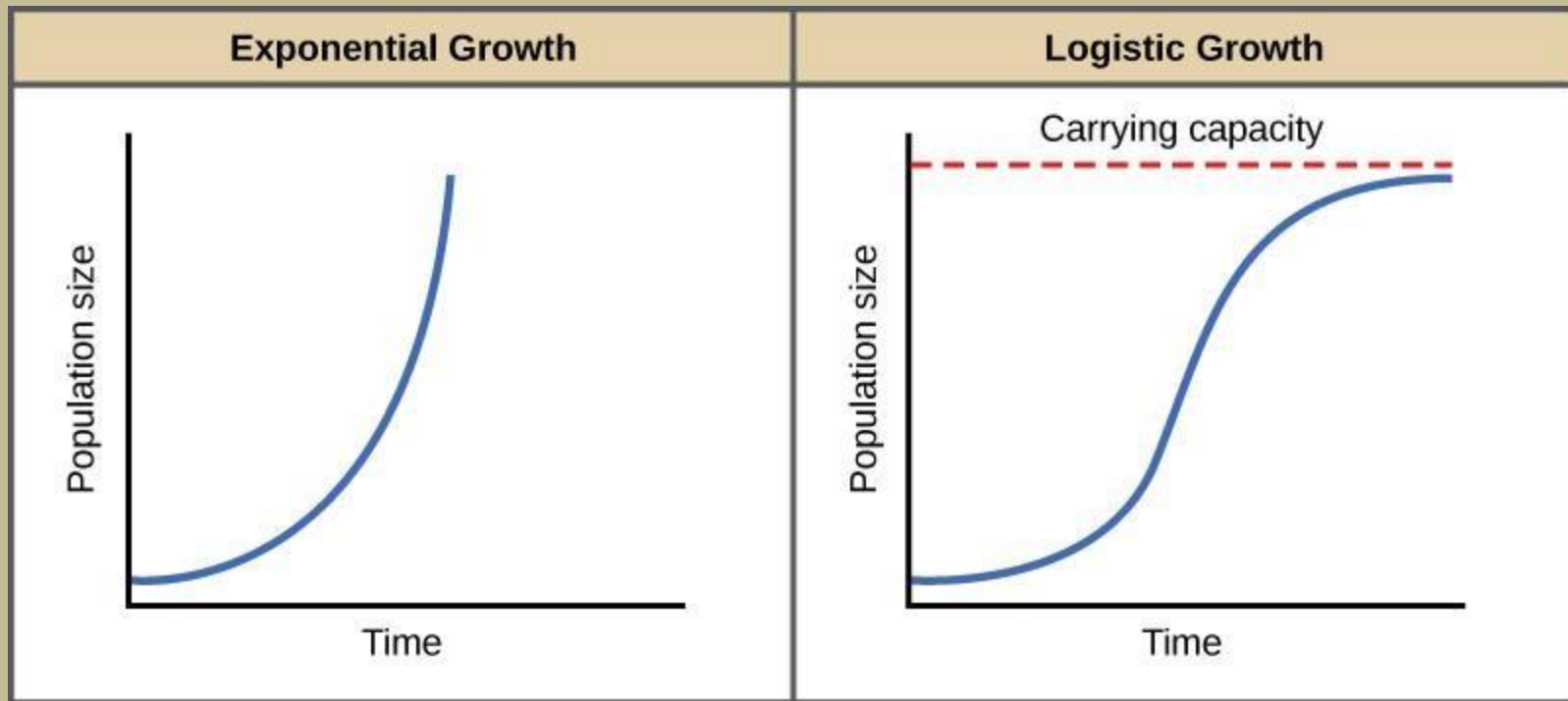
→ population shrinks



Population Growth

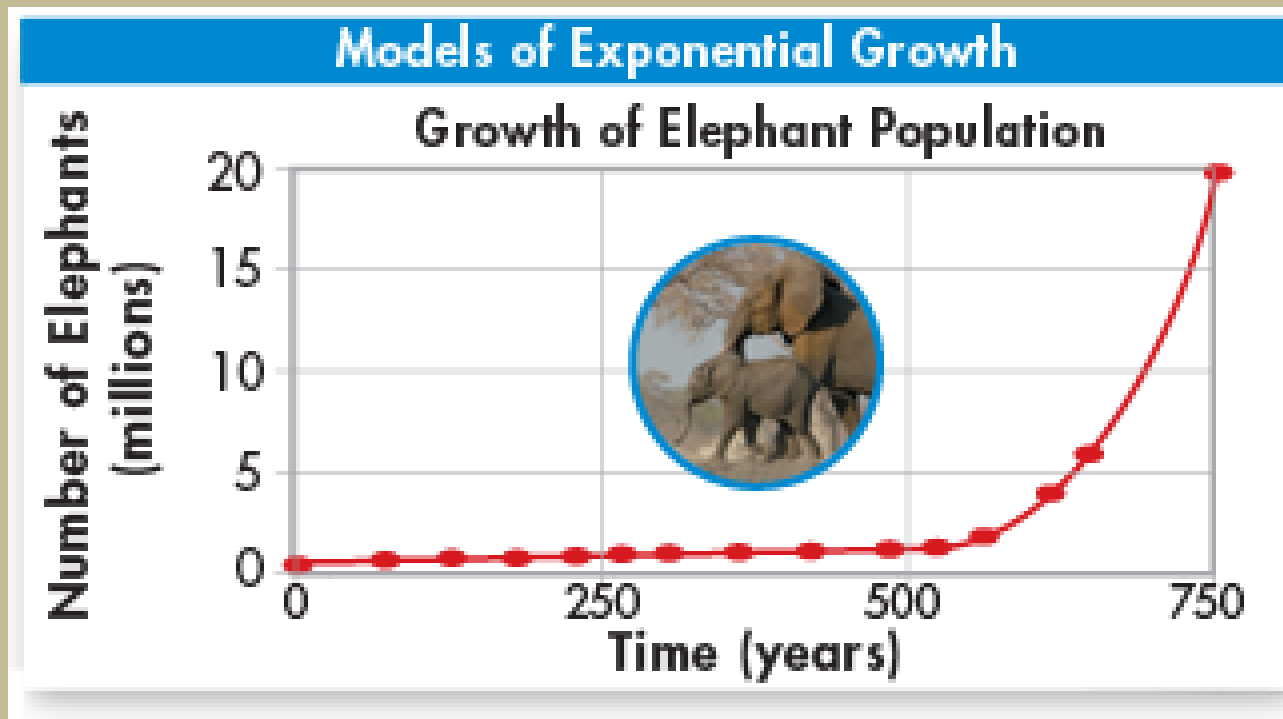
2 ways that populations grow:

1. Exponential Growth
2. Logistical Growth



1. Exponential Growth

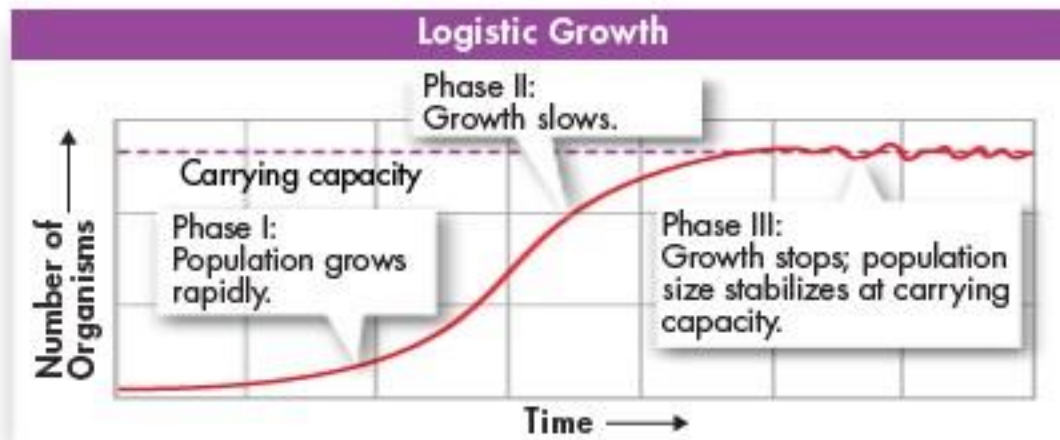
If there are unlimited resources, a population will grow exponentially.



2. Logistic Growth

Exponential growth first and then growth slows and then stops

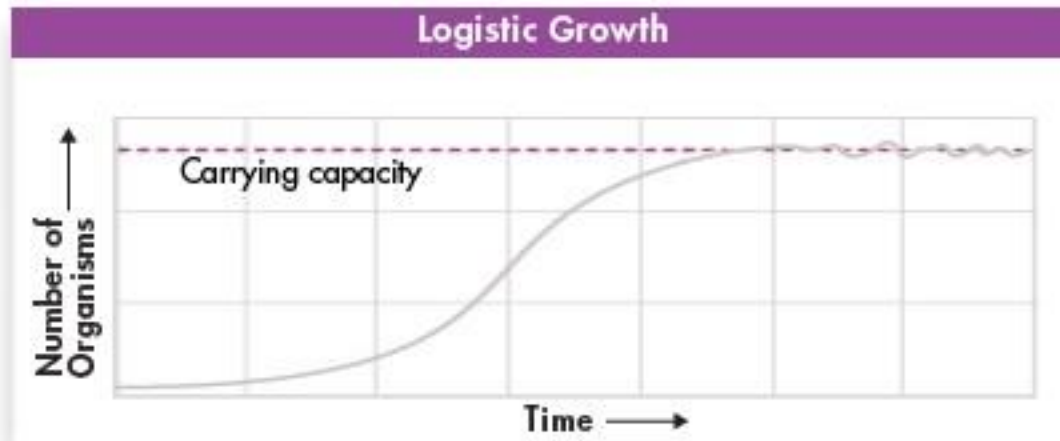
Many familiar plant and animal populations follow a logistic growth curve.



Carrying Capacity

The maximum number of individuals of a particular species that a **particular environment can support**.

Once a population reaches the carrying capacity of its environment, the population cannot grow any larger.



Limiting Factors

- Determine the carrying capacity.
- 2 Types:
 - 1) Density-dependent factors have a greater impact as the population size increases.
 - 2) Density-independent factors affect all populations, no matter the size.

*Draw the diagram to the right in your notes

