

Course- WL 703, Principles of Wildlife Management

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6th Lecture

Population Dynamics:

- size and age composition of populations as dynamical systems, and the biological and environmental processes driving them such as

birth and death rates,

and by immigration and emigration

Example: are ageing populations, population growth, or population decline.

Sigmoid model of population growth

Assumptions of model:

1. Population starts with a stable-age distribution.
2. Density is measured in appropriate units (i.e., individuals are equal *versus* age-specific differences).
3. There is a real attribute of the population corresponding to r .
4. The relationship between density and rate of increase per individual is linear.
5. The relationship between density and the rate of increase operates instantaneously without any time lags.
6. Carrying capacity is constant.
7. The population is large.