

Populations

Food and space - organisms do not always have enough food or space

Competition - when two or more organisms seek the same resource at the same time



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Growth Limits

Competition can limit population size

Can take place in same species for food, water or shelter or between different species

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Population Size



Population counts can determine if a population is healthy or in danger of disappearing

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Population density - the number of individuals of one species per a specific area

Methods for counting

Trap - mark - release

They trap a group of species, mark and count them then release them into the wild

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Sample Counting - count species in a small area and then multiply to estimate a larger area.

Limiting Factors

anything that restricts the number of individuals, and include living and nonliving factors

*when no more living space is available the population cannot grow

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Carrying Capacity

The largest number of individuals of one species that an ecosystem can support over time

If the carrying capacity is exceeded there will be a direct effect on the species.

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Biotic Potential

The highest rate of reproduction under ideal conditions

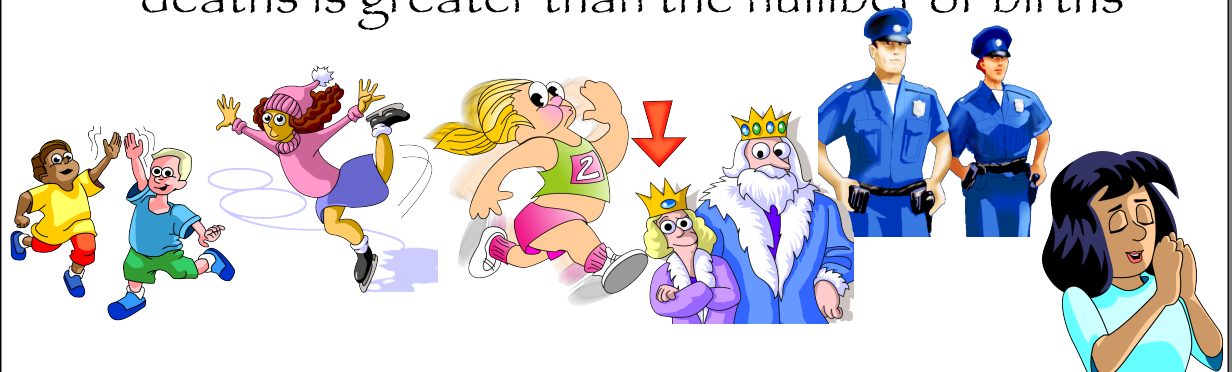
Ideal conditions: favorable climate, no diseases, no predators, unlimited food supply

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Populations increase when the number of births are greater than the number of deaths



Populations decrease when the number of deaths is greater than the number of births



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Moving Around

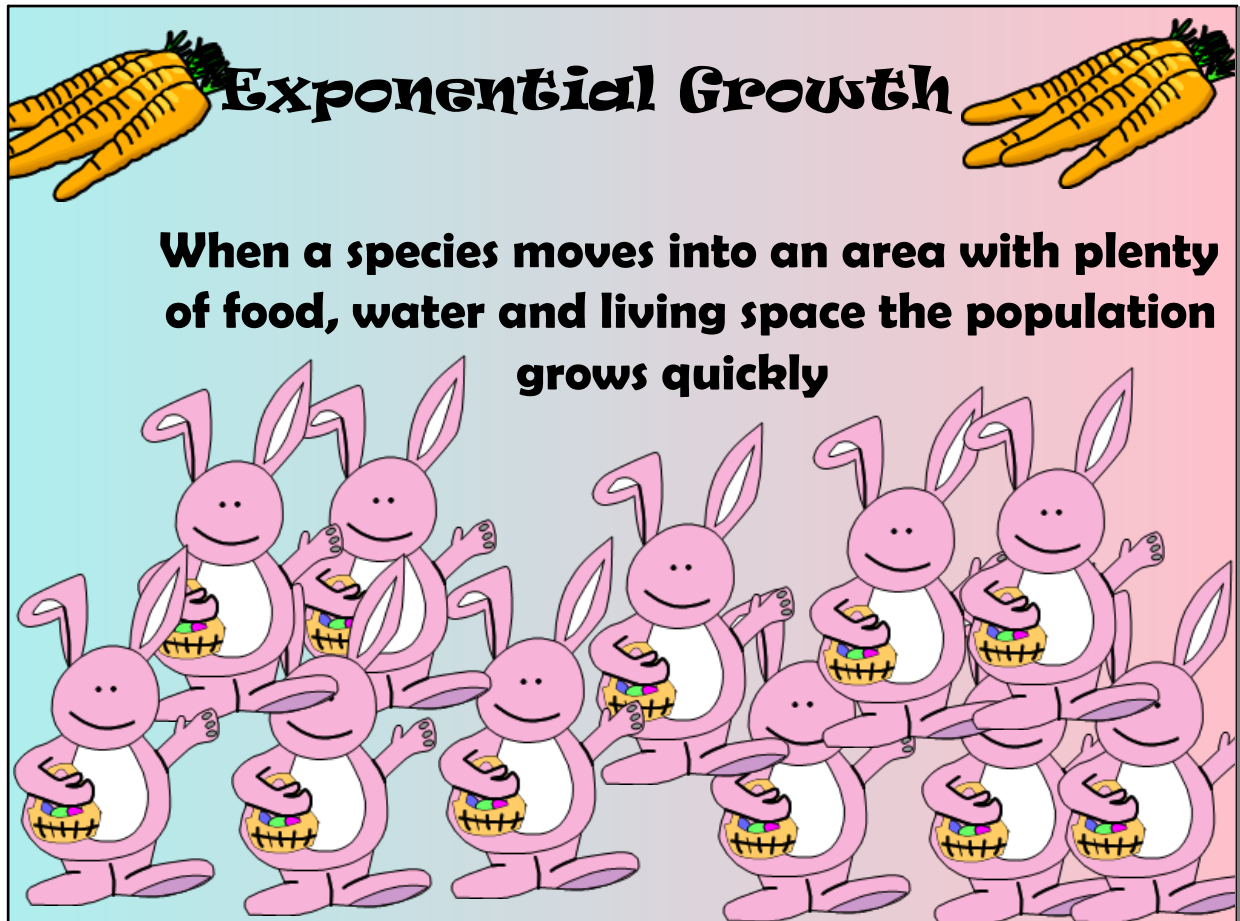
Animals move around when they no longer have a place to live.

Goats will move and start a new population

Birds will migrate for the winter to find resources

plants and microscopic organisms move, carried by water or wind

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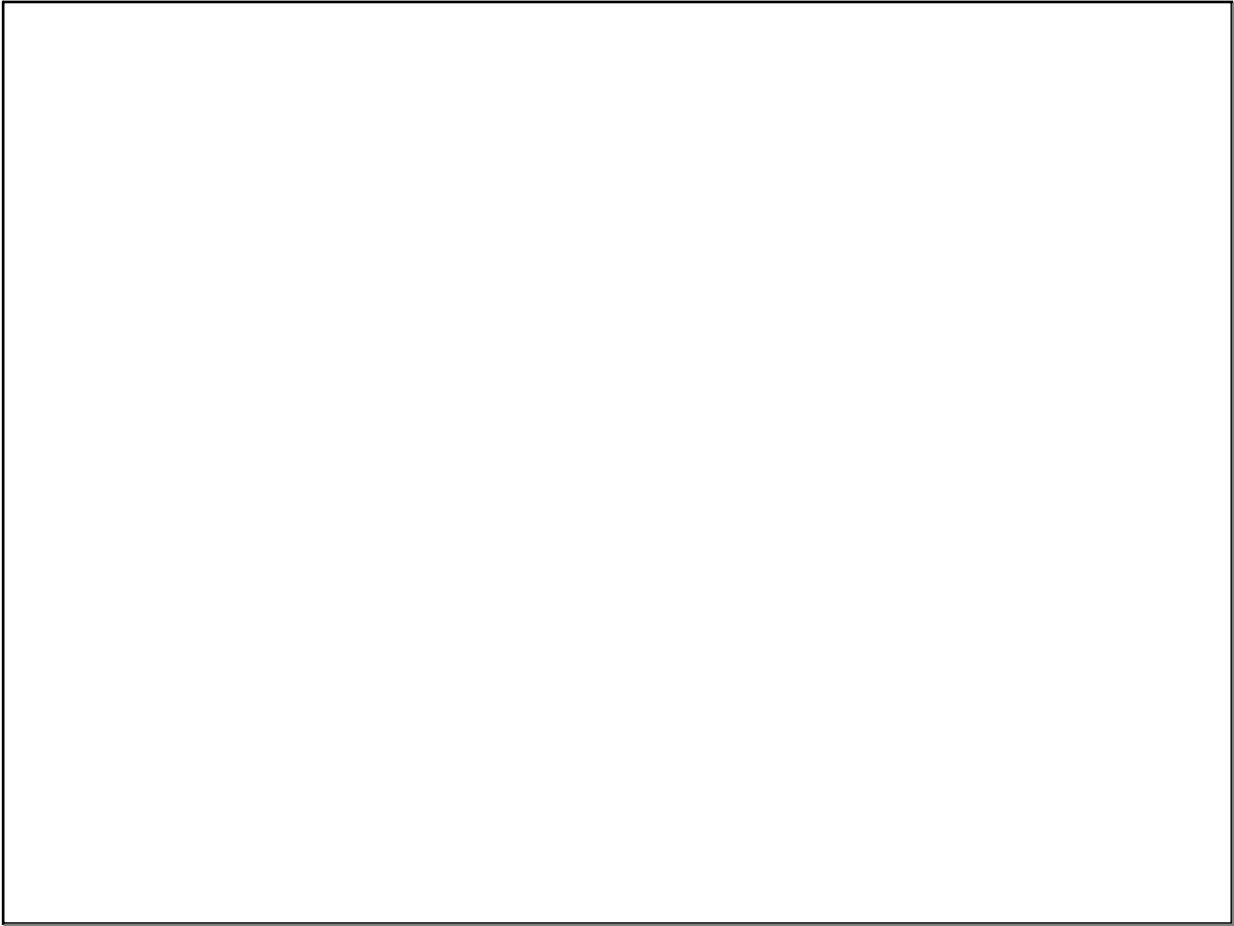
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Semi - 1950's

The Larger a population gets, the faster it grows - exponential growth

As a population reaches carrying capacity, the more competition there will be



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