


CONCEPT REVIEW
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Population size

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 Complete this Concept Review so you can keep a record of what you have learned.

Definitions

- In ecology, a population is a group of individuals of the same species, living in a shared space at a specific point in time.
- Population size refers to the number of individuals in a population.

Factors affecting population size

- Births
- Deaths
- Immigration
- Emigration

Methods for measuring the size of a population

Method	Description
Counting individuals	<u>Counting all the individuals within the area occupied by that population</u>
Counting by sample area	<u>Counting of the individuals in randomly selected sections of the study area and then estimating the total population size using a formula</u>
Formula: $\text{Population size} = \frac{(\text{Average number of individuals per section} \times \text{Total study area})}{\text{Area of a section}}$	
Mark and recapture	<u>Installing cages or nets to capture individuals; counting and marking captured individuals; releasing the marked animals; second capture of individuals and counting of marked and unmarked animals; estimating the size of the population using a mathematical formula</u>
Formula: $\text{Population size} = \frac{(\text{Number of marked animals} \times \text{Total number of animals captured the second time})}{\text{Number of marked animals recaptured}}$	