

# Demography and Population Sizes Cheat Sheet by emilyaltmann via cheatography.com/81523/cs/19935/

#### **Demography**

#### Demography

study of changes in the characteristics of a population

#### **Survivorship Curves**

#### Type I Survivorship

child survivorship high, old mortality high

#### Type II Survivorship

die at equal rates despite age

#### Type III Survivorship

child mortality high, adult survivorship high

#### **Survivorship Characteristics**

Mortality, # offspring, gestation period, parental care, organism size

## Fecundity

#### It is...

Potential for species to produce offspring

#### **Factors Affecting It**

age of sexual maturity, max reproductive age, length of gestation, offspring per pregnancy, parental care

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## **Measuring Population Change**

 $\Delta N = (B + I) - (D + E)$ 

B = births

D = deaths

I = immigration

E = emigration

#### **Population Growth Rate**

 $r = \Delta N / N1$ 

#### Per Capita Growth Rate

during specific period of time

r = b - d

b = # of births / population size

d = # of deaths / population size

r > 0 pop. growing, if less, declining

#### Max per capita growth rate

ideal conditions, exponential growth model

#### **Logistics Growth Model**

Exponential growth model not realistic.

has carrying capacity

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# **Types of Density**

#### **Crude Density**

number of individuals in habitat

#### **Ecological Density**

number of individual in the area actually used by them, not random space

#### Dispersion

#### Clumped

Schools, herds, colony, flock

#### Uniform

penguins

#### Random

plants

# Sampling Methods - to find average pop.

#### **Quadrant Sampling**

placed randomly to avoid bias, many small square sections

#### Mark Recapture

capture organisms, mark them, release them, recapture set of organisms

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