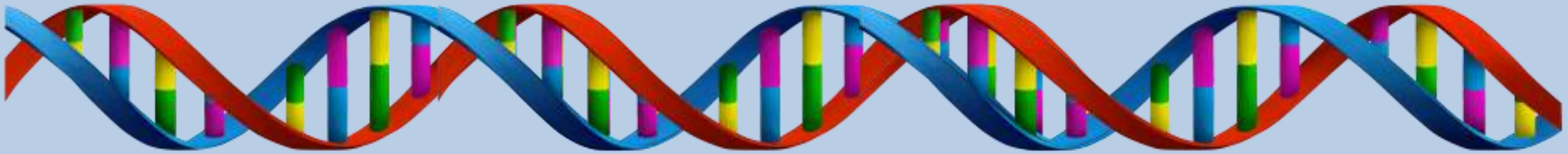
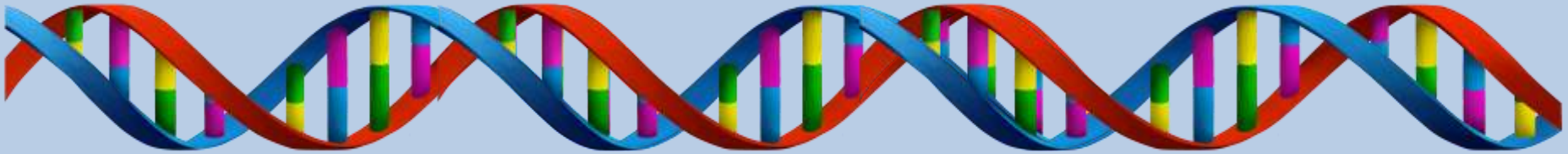
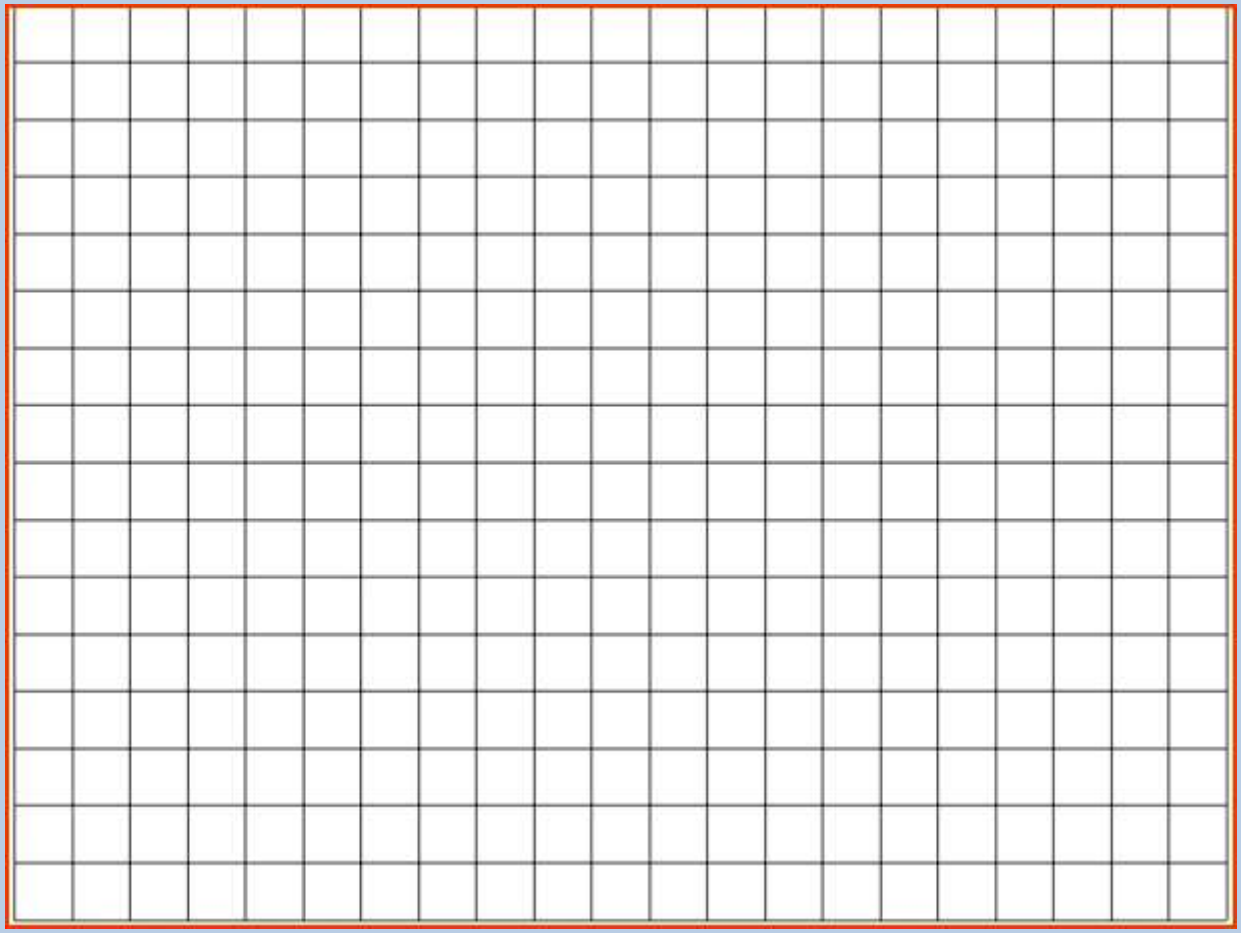


1. List three factors that could have contributed to skewed data in the algae lab.
2. As a scientist, how would you eliminate those factors in future experiments?



Constructing a Graph

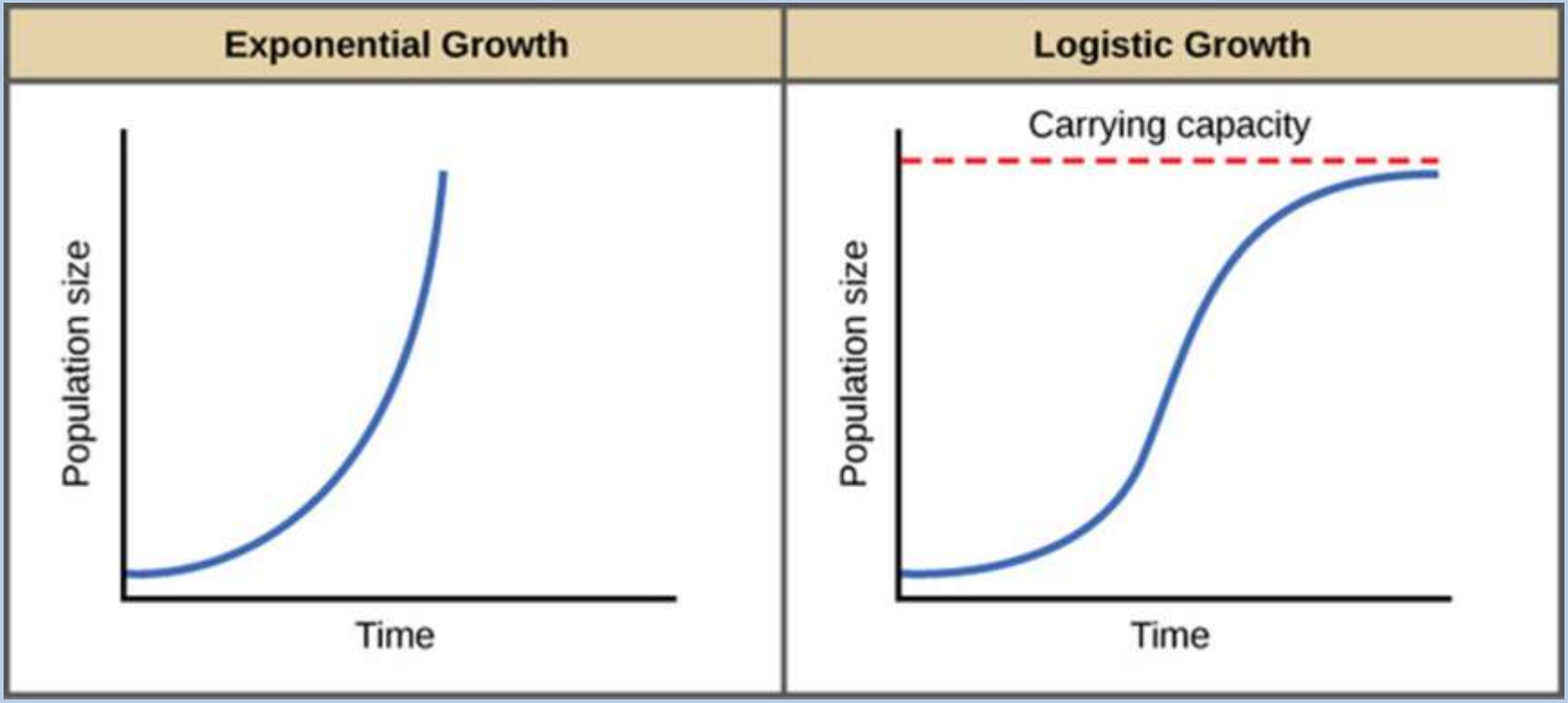


Constructing a Graph

- Take 10 minutes to start your graphs
- Ask Questions!

Populations

- **Ecologists tend to find 2 patterns of growth in populations:**



Populations

- Exponential Growth: Under ideal conditions with unlimited resources, a population will increase exponentially.
- The larger the population gets, the faster it grows.

Populations

- **Logistic Growth: When a populations growth slows and then stops, following a period of exponential growth.**

Populations

- Carrying Capacity: maximum number of individuals of a particular species that a particular environment can support.

Populations

- **What determines carrying capacity?**

Populations

- Take our your population packets.

Population Review

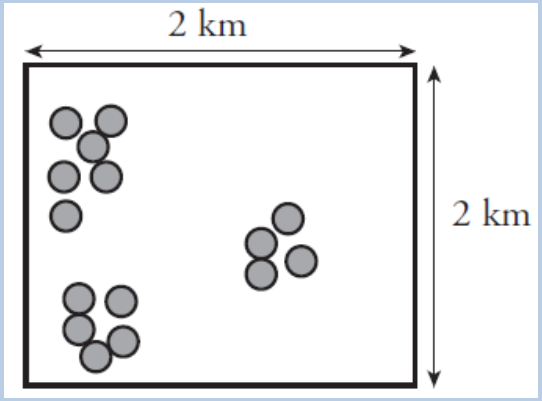
- What is the formula for density?

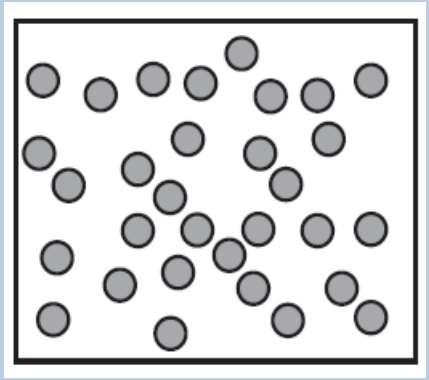
Population Dynamics

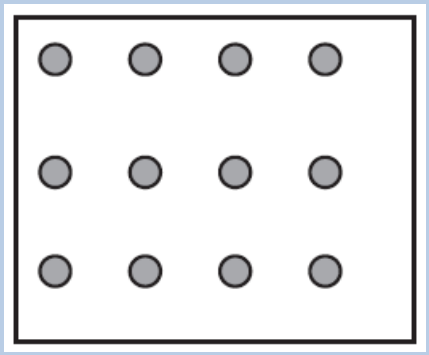
- What is the formula for density?
- D = m/v

Population Dynamics

- What is the formula for density?
- D = m/v
- For populations:
  - Pop. Density = # of animals/area


2 km
2 km

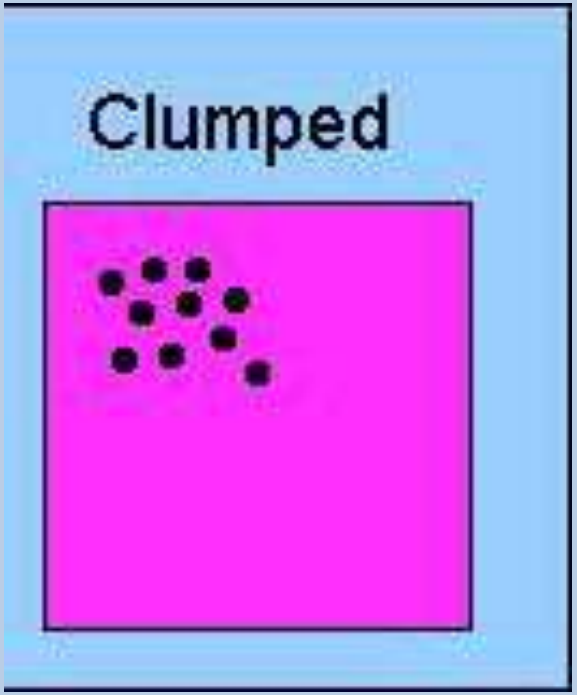




Population Dynamics

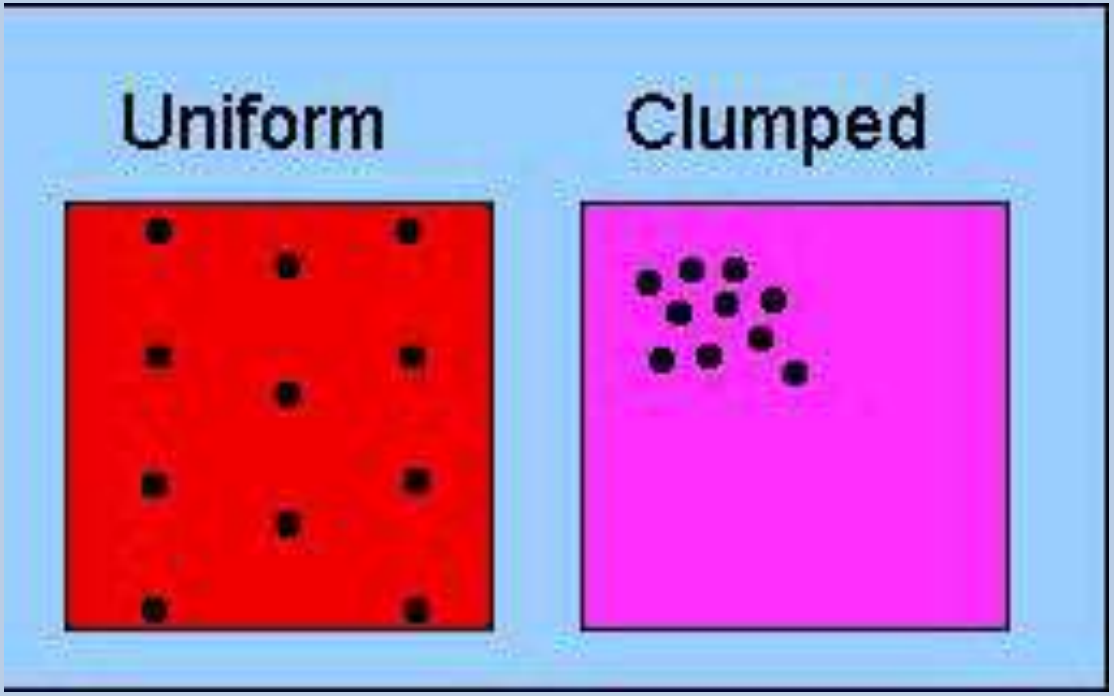
- What are the 3 patterns of population distribution?

Population Dynamics

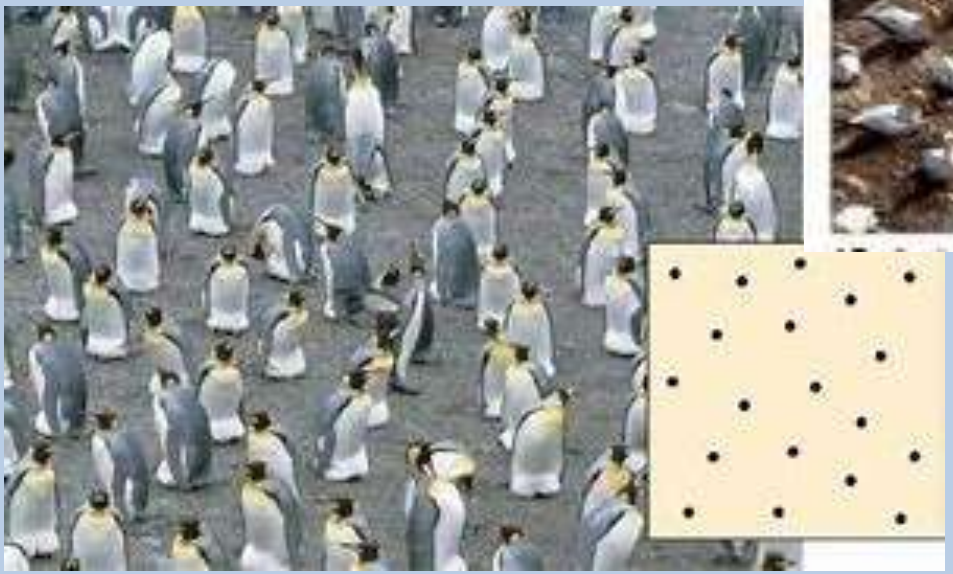


Population Dynamics

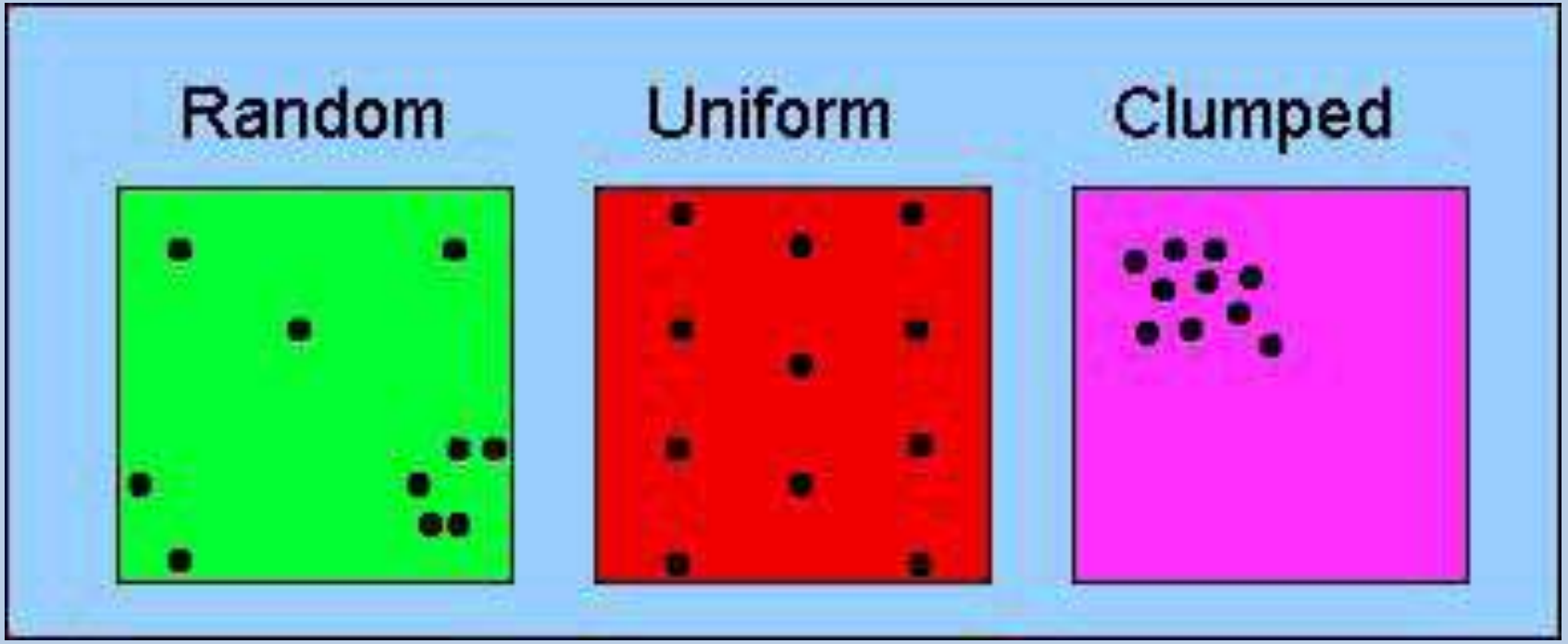
Population Dynamics



Population Dynamics



Population Dynamics



Population Dynamics

Populations

- Everyone in the corner!

Density Dependent Limiting Factors

Density Dependent Limiting Factors

Density Dependent Limiting Factors

Density Independent Limiting Factors

Density Independent Limiting Factors

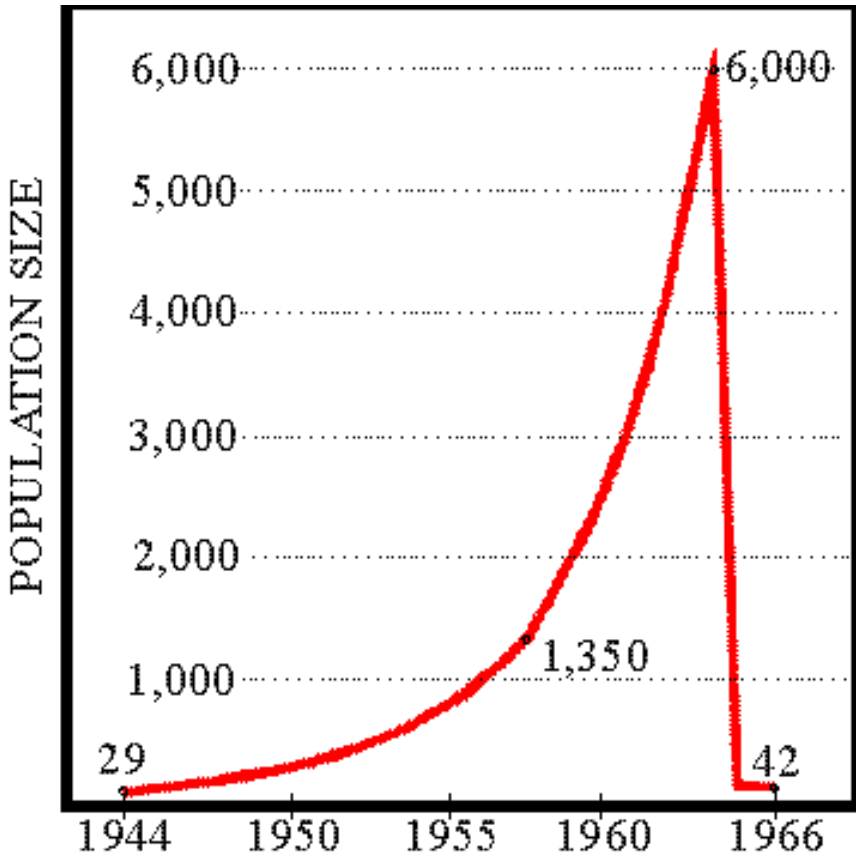
Density Independent Limiting Factors

Populations

- **What will happen when a population exceeds the available resources?**

Population Crash

Population Crash



Assumed population of the St. Matthew Island reindeer Herd. Actual counts are indicated on the population curve.

Population Crash