**Population Dynamics**

**Population Dynamics:**

* organisms and their environment have their own ways of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ which keep the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Carrying Capacity:**

* the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ population of a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that can be supported by an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Limiting Factors:**

* factors that affect the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the ecosystem.
* limit \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

There are **4 limiting factors** that determine the **carrying capacity** of an ecosystem.

1. Nutrients and Energy

-the primary source of energy to organisms is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

2. Number of Organisms (Predators and Prey)

-number of organisms in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ above or below. (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_-)

3. Competition

-the need for the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ between organisms.

*Intraspecific competition* (competition among members of the\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ *species*)

*Interspecific competition* (competition between *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ species*)

4. Density

-\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ needed for each organism

-*population density* (the number \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ for a given area)

*-density dependent factors* (overcrowding can cause \_\_\_\_\_\_\_\_\_\_\_\_, disease, more \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, competition, etc)