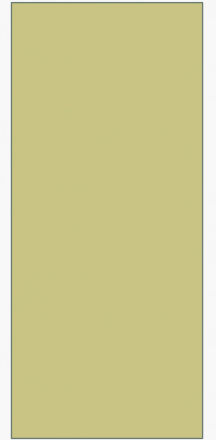


THEORIES OF EVOLUTION

CHAPTER 15-2



THEORY OF ACQUIRED TRAITS

- Lamarck, 1809
- Species evolve by obtaining (keeping) traits that their parents developed during their life
 - Experience or behavior
 - NOT determined by genes
- Characteristics that were not used were lost or reduced
- DISPROVED!!!
 - Mice experiment

THEORY OF NATURAL SELECTION

- Darwin, 1858 (remember the time period)
- Individuals with the most favorable traits for a specific environment survive & pass on these traits to their offspring
- “survival of the fittest”
- SUPPORTED!

4 FACTORS THAT GOVERN N.S.

- **Overproduction**- produce more offspring than can survive
- **Variations**- found within a species
- **Favorable trait**= **adaptive advantage**
 - Some variations better for survival & reproduction than others
- **Population adapts**
 - Over time, offspring of individuals with helpful variations make up more & more of the population

MODERN IDEA OF N.S.

- Evolution= change in the gene pool of a population over time