

## **Concepts and Terms for Wildlife**

Charles Darwin published his Theory of Evolution; by Means of Natural Selection in 1859. Charles insight into evolution was a famous landmark of science. Many of Darwin's ideas are still used by biologist for all fields of biology today, even those relating to fields such as microbiology. Darwin stated the mechanism for evolution is natural selection. Students may view evolution as what has occurred for the species present to exist. Natural selection is how this phenomenon has occurred. Darwin's ideas were met with great controversy from other scientist and other cultural groups. His theory of evolution is now and was at the time of his discovery, supported with extensive evidence. The theory of evolution can be supported by anatomical homologies, embryological homologies or molecular homologies (Campbell and Reece 2002). Molecular homologies e.g. genetic analysis of phylogeny.

The following are terms students of Envirothon may wish to become familiar with. Familiarity with the following terms will empower students when speaking of issues relating to wildlife.

- Predation
  - Herbivore
  - Omnivore
  - Detritivores
  - Detritus
  - Carnivore
  - Camouflage
  - Parasite
  - Keystone species
  - Ecological succession
  - Biodiversity
  - Species richness
  - Heterotroph
  - Primary, secondary and tertiary consumer
  - Biomass
  - Reserve
  - Conservation
  - Bioremediation
  - Natural selection
  - Homology
  - Endemic
  - Population
  - Bottle neck
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- Genetic drift
  - Hardy-Weinberg equilibrium
  - Gene flow

- founder effect
- Geographic variation
- Fitness
- Macroevolution
- Phylogeny
- Kingdom, phylum, class, order, family, genus ,species