

Charles Darwin (colourized B&W print)

Charles Darwin

The Theory of Natural Selection



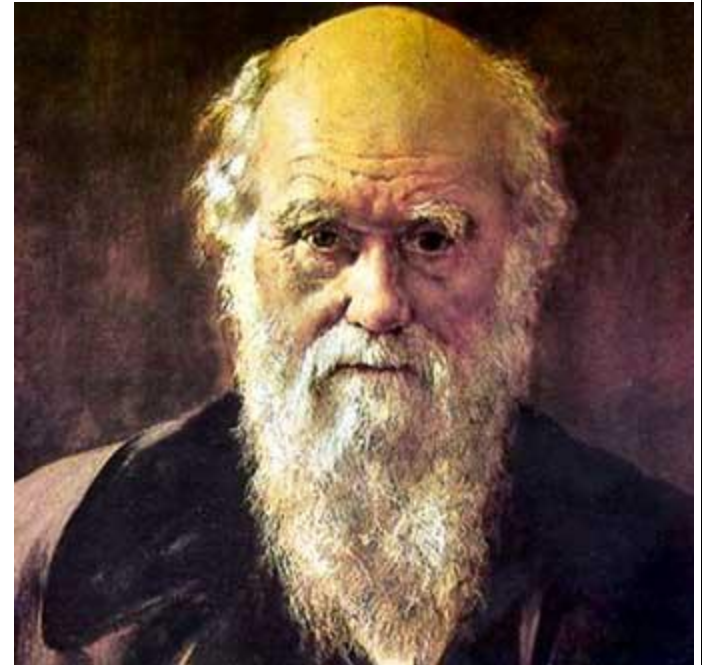
Who was Charles Darwin?



Charles Robert Darwin

- Born February 12, 1809 in Shrewsbury, England

- Went to medical school
- Study to be a clergy man
- Finally became a naturalist





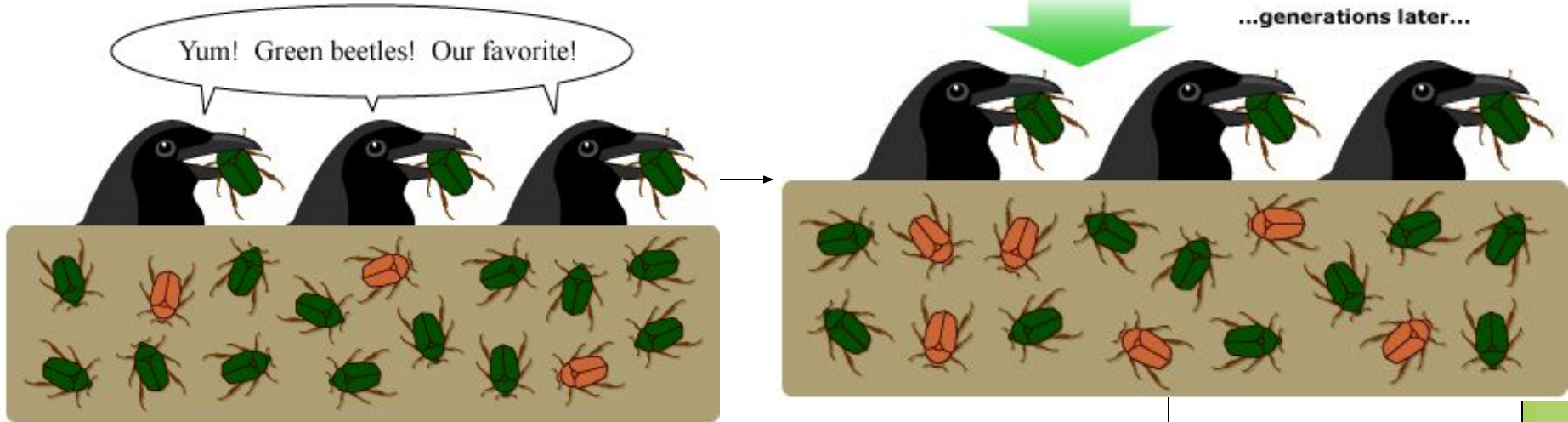
How Did Darwin Develop His Theory of Natural Selection?



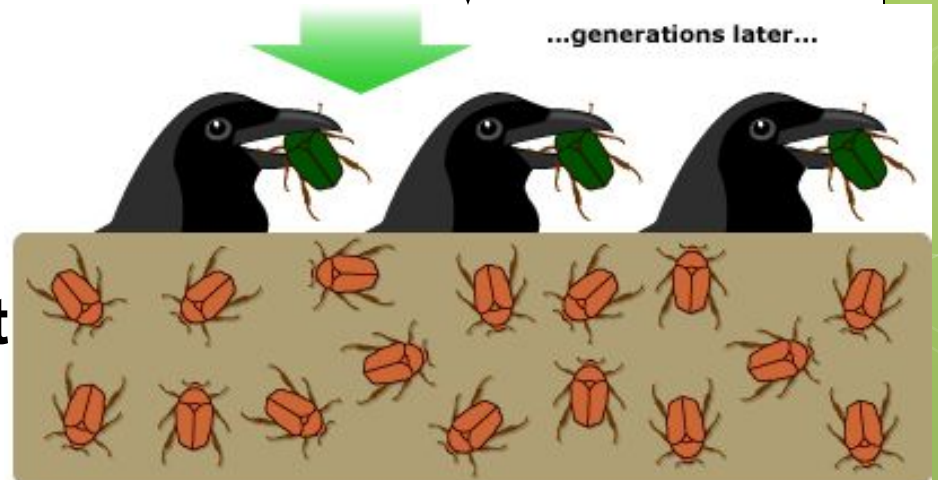
- Darwin served as naturalist aboard the H.M.S. Beagle which was a ship that was on a British science expedition traveling around the world.
- In South America Darwin found fossils of extinct animals that were similar to modern species.
- On the Galapagos Islands in the Pacific Ocean he noticed many variations among plants and animals of the same general type as those in South America.
- The expedition visited places around the world, and Darwin studied plants and animals everywhere he went, collecting specimens for further study.
- Darwin studied the specimens he collected on his journey on the H.M.S. Beagle for many years and reviewed the journals of observations from his trip to develop his “Theory of Natural Selection”.

What is Natural Selection?

Natural selection, in a nutshell:



Those organisms that are best adapted for survival are the ones that are chosen for reproduction. Only those organisms that reproduce pass on their traits.



Green beetles have been selected against, and brown beetles have flourished.

Major Points of Natural Selection

Charles Darwin and his Theory of Natural Selection

Was a naturalist- a scientist who studies organisms in their natural habitat.

Natural Selection – animals that are the best adapted to their environment are the ones that survive and reproduce.

More young are produced than can survive.

Organisms compete for needed resources.

Variations are passed from parents to offspring.

Only those organisms that reproduce pass traits to the next generation.

- An **adaptation** is a trait that helps a species survive.
 - One type of adaptation organisms have are **structural adaptations**. A structural adaptation is a body structure that enables the animal to perform specific functions.
 - **Camouflage** is a structural adaptation that enables an animal to blend with its surroundings.

- **In selective breeding, organisms that have certain desired traits are mated to produce offspring with the desired traits of both parents. The desired traits are produced by the combination of genetic material that the offspring inherit from both of their parents.**