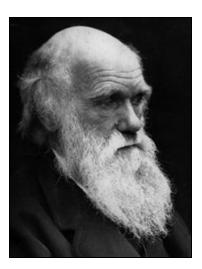
## The Theory of Natural Selection



During the 19th century, Europeans were exploring their own countries and also going on trips to explore other places around the world. Naturalists like Charles Darwin and Alfred Russel Wallace were making observations of how plants and animals were spread around the world. They found that different species were found in different environments. Species in the tropics were adapted to live in the tropics and species in England were well adapted to live in England. Finches on different Galapagos Islands were well adapted to their particular environments. Independent of one another, Darwin and Wallace both developed the theory of natural selection to explain the geographic distributions of

species.

The theory states that there are variations in organisms of the same species. Some are tall, some are short, some have larger mouths, strong eyesight, etc. The organisms that are most well suited to live in a particular environment are more likely to survive. The survivors produce the next generation and those offspring are more likely to have their parent's special traits (such as strong eyesight).

## Here are the main points of the theory of natural selection:

- 1. **Everyone's Different**: There are variations among individuals of the same species (better eyesight, extra feathers, longer legs, etc.)
- 2. Resources are Limited: Resources such as food and shelter are limited
- 3. **Lots of Babies**: Organisms make more offspring than could actually live in the environment.
- 4. **Organisms Compete**: Organisms compete for food and other resources in the environment.
- 5. **The "Fittest" Survive**: The organisms whose variations best fit the environment are most likely to survive, reproduce, and pass useful traits to the next generation.

The evidence of evolutionary changes in life forms through time has been well established and accepted for more than a century. Natural selection is an explanation of how evolution works.