

Natural Selection and Adaptations

Back to Natural Selection

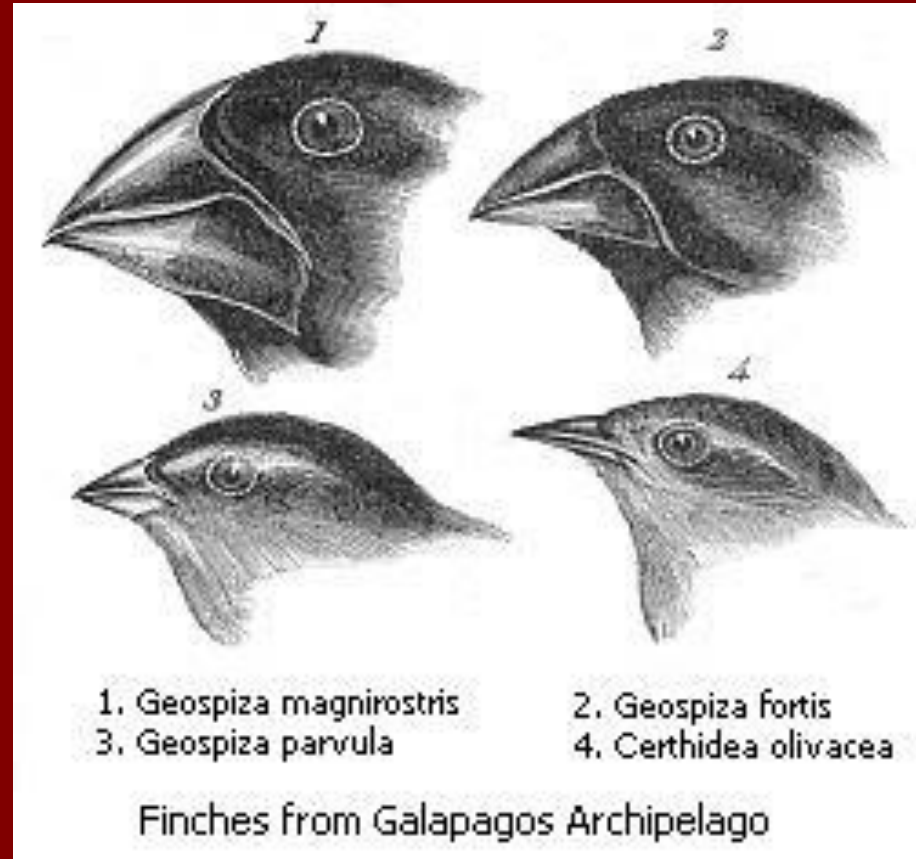
- From the activity we did last week....
 - What “woozles” survived and reproduced the most in your environment? Why?
 - Can you think of an example of this in the wild?
 - Natural selection selected FOR those wozzles, allowing them to survive, reproduce and pass on their genes to their offspring

Some new stuff

- Natural selection needs variety (something it can “choose” between)
- Adaptation- A characteristic in an organism that helps it adapt to its environment. Adaptations are favored (selected for) by natural selection
- Fitness- Capability of an individual with a certain genotype to reproduce.
 - When fitness is larger than 1= genotype is increasing in frequency
 - When fitness is less than 1= genotype is decreasing in frequency
 - Found by;
$$\frac{\text{\# of individuals of the genotype after selection}}{\text{\# of individuals of the genotype before selection}}$$

Example of an Adaptation

- Charles Darwin studied finches around the Galapagos islands with a variety of beak types.
- He found that each species had a different type of beak which allows them access to different food sources.
- For example.. Short stout beak= can crack large hard seeds.
- Darwin found that different types of birds tended to live around the food sources they could easily access the most of.
- During dry seasons → selection



- You can use materials in the back of the room to create your own “beak”,
- Make sure to attach it to the hand you DON'T write with.
- You have 20 minutes!

Activity Time!!!

- **Now you're going to go out and collect food with your new beaks... you need**
 - Your handout, a pen/pencil, a petri dish
- **The area you are going to collect food in is marked off. You can only pick up one piece of food at a time with your beak.**
- **When I say go, you can go collect food one at a time to bring back to your “nest” (petri dish)**