Abby Lodge
Evolution in the Galapagos

In 1831, Charlies Darwin traveled on the Beagle around South America to the Galapagos Islands. The many species of the Galapagos got Darwin thinking about how new species come to be. Darwin proposed that living things are not designed by an unchangeable plan but instead are shaped by the world around them.

In the video, Dave Anderson is one of the scientists that has permission to go to the Galapagos – it was stated in the video that everything he brings in, must go out. Dave is first showed with some mocking birds – who he says are eager to volunteer. The mocking birds have long and curved beaks on the island of Espanola because they do more digging for food on that island. Their breast feathers are also whiteish and speckled – while other islands are cleaner. On all of the islands the mocking birds look a little different.

Darwin only visited four of the islands in the archipelago, yet he managed to collect hundreds of species of birds, animals and plants. On the island of Floreana, Darwin discovered what he called aboriginal species, which scientists now call endemic species. Floreana only has 21 plants that are endemic. Darwin also noticed that many species on the islands bared resemblance to those he saw on the mainland. He called these "the mysteries of mysteries."

Darwin's finches are a classic example of evolution because there are 13 species, each with a unique beak for their feeding styles. The ground finches are most common – there is a large ground finch and a sharp beak ground finch. Yet, contrary to legend, Darwin himself did not pay much attention to the little birds that hoped around his feet. He did collect about a dozen samples while he was on the islands but did not even bother to label them or note which islands they came from. The finches on one of the islands that Darwin did not even visit become the best evidence that his theory was not only a theory but an observable fact.

On the island of Daphne Major scientists are now weighing and measuring every one of the ground finches. Dave Anderson says that this island is significant to science because it is the laboratory of evolution. He says that they can see evolution happening on the island. There are not too many components, just what size seeds and what size beaks. If there are small seeds one year, then the next year's finches have smaller beaks, but why? There is a range of beak sizes on the island. When there has been plenty of rain, there are small seeds so the finches with small beaks will thrive and will have more offspring. So, the result is that the next year the average beak size is now smaller – the species has evolved. When there is a drought, there are larger seeds, and the finches with larger beaks thrive and therefore have more offspring that is evident in the next year. Dave Anderson says there is an oscillation back and forth based on food supply – evolution in progress that is happening right in front of their eyes. And unlike many believe, evolution doesn't have to take millions of years.