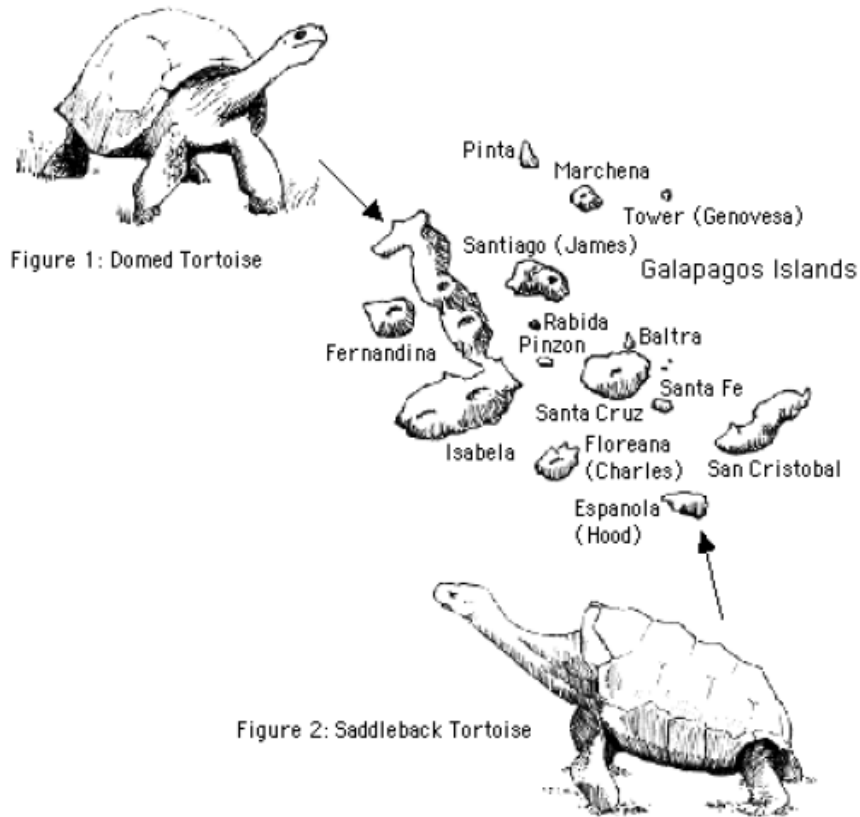


Case Quiz: Galapagos Tortoises

First, learn a little about the Galapagos Islands and what makes them so important for our understanding of evolution.

The Galapagos Islands are home to giant tortoises that feed on green vegetation. Originally, tortoises lived only on Isabela Island and had dome-shaped carapaces, or shells (figure 1). Isabela has a relatively wet climate and varied plant life.

Today tortoises are found on the other islands as well. On the small islands such as Española (Hood), there are tortoises that have a 'saddleback' carapace (see figure 2). The 'saddleback' carapace is elevated above the neck and flared above the hind feet. On the small islands the climate is drier and there is almost no ground vegetation. Prickly pear cactus (a major source of food and water for the 'saddleback' tortoises) has a tree-like form; the woody trunk holds fleshy green parts of the plant high off the ground.



Watch:

- * Galapagos Tortoises <http://www.youtube.com/watch?v=JyOLK3QVprE>
- * Galapagos Tortoise Island Comparison <http://vimeo.com/9813574>

Assignment:

1. Using the 4 parts of natural selection theory, explain why saddleback tortoises are the predominant tortoise on the small islands like Española (Hood). For each part, also include a general definition. (20 marks)

i.

ii.

iii.

iv.

2. Do you think that saddleback tortoises could survive on other islands like Isabella? Explain why or why not. (2 marks)