

Transcript

Darwin & Dinosaurs: Galápagos Tortoise Shells... Island Adaptations

Angus Carroll: One of the guys that Darwin met on the Galápagos said, "If you show me a tortoise, I can tell you what island it came from." There are two major types of tortoises in the Galápagos Islands. One's called the "dome-shaped" and the other's called the "saddle shaped" and it has to do with their shell, which is known as the carapace. The dome-shaped keeps the tortoise's neck almost straight out. The tortoise can't really lift his neck very high, because the shell comes right above the top of his neck. Whereas, in the saddle shaped tortoise, the tortoise is able to lift his head very high and it turns out that they live on islands where they have to be able to get at vegetation that's off the ground, where there isn't as much vegetation. The dome shaped tortoises live on the islands where there is lush vegetation right in front of them, on the ground. They don't need to lift up their head.

It's a great example of microevolution, where a single species living in a slightly different environment have evolved small adaptations, to help optimize how they gather food. Darwin realized that that was important right then and there. While still on the voyage, he wrote in his notebook: "If there is any truth to the fact that a single species varies throughout the islands in the Galápagos, that is going to undermine our whole understanding of species."