

Medium Ground Finches of Daphne Major

The Ecosystem

The Galapagos Islands are located in the Pacific Ocean, 1000 miles off the coast of Ecuador. They are home to many species of plants and animals found nowhere else on Earth, including a number of species of finches. The particular species we are interested in is *G. fortis*, the medium ground finch. In this investigation we focus on the population of *G. fortis* found on one of the smaller islands, Daphne Major.



Daphne Major is just 1/8 sq. mile, very rocky, and very dry. It has two craters in its center and is uninhabited by humans except for a few scientists working there. There are no trees on Daphne Major but there are a few low-growing plants and shrubs, and some cacti. Besides the finches, animal life consists mainly of insects and an occasional owl or hawk.



Daphne Major typically has a hot, wet season from January - May with heavy rains producing 90% of annual rainfall and a cool, dry season from June - December with only light mists producing small amounts of water.

The Finches

Medium ground finches get their name from the fact that most of their foraging for food happens on the ground. Their preferred food is the small, soft seeds of two plants - *Chamaesyce*, a small shrub, and *Portulaca*, a low-growing spreading plant with thick, fleshy stems and yellow flowers. Some finches with larger beaks can also eat the large, hard seeds of *Tribulus*, a vine that spreads widely. Because of the long spines on its seeds, *Tribulus* is also known as Puncture Vine.



By Charlesjsharp

Medium ground finches produce one clutch of young per year with an average of 3 eggs. They usually breed right at the end of the rainy season. Fledglings grow to adult size within one year. The life expectancy of a medium ground finch is about 16 years.



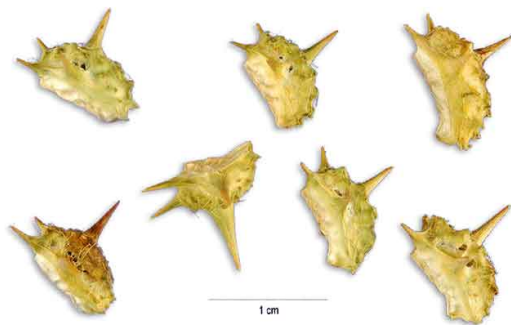
Chamaesyce seeds:

Avg. length = .8mm
Rigidity = soft



Portulaca seeds:

Avg. length = 1mm
Rigidity = soft



Tribulus seeds:

Avg. length = 5.8mm
Rigidity = hard

The research

In 1973 Peter and Mary Grant, a biologist couple, first arrived to the island of Daphne Major with the intention of studying why traits in populations change over time. Since then, they have been going back to the island with many of their students to continue collecting data on finches, vegetation and environmental conditions. You will have the opportunity to look at some of the data they have collected there. The Grants have been the recipients of many prizes and awards for their dedication and contribution to science.