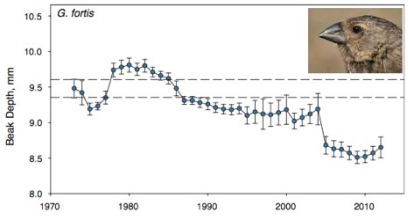
Community Spotlight

Each Community Spotlight features an outstanding group, partner, resource, or member of our community.

Evolution in Darwin's Finches: Using Darwin's Theory of Evolution by Natural Selection postulates to evaluate evidence of evolution (Version 1.0)

By Kaitlin Bonner



Module Description:

In this activity students work with data sets collected by Peter and Rosemary Grant to investigate evidence for evolution in *Geospiza fortis* on Daphne Major, Galapagos. The first few minutes of the HHMI BioInteractive video "*The Origin of Species: The Beak of the Finch*" is used to introduce the activity. Students begin by discussing changes in beak size by evaluating a figure. Then they work through identifying what they would need to be convinced that this figure represents evolution in this population using the postulates of Darwin's Theory of Evolution by Natural Selection. Each group works with a data set that addresses one of Darwin's postulates using authentic research data collected by the Grants (available through Dryad Repository). Each group generates a figure and conclusion as to whether the postulate is supported by the data. The activity culminates with a discussion of the evidence presented by each group and a final open-ended exploration into the selective pressure that could be driving changes in average beak size over time in the population of finches.

Teaching Setting:

This activity was designed for a first year, introductory biology course for biology majors.

QUBES Citation:

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Related Materials and Opportunities:

The author created this resource while participating in the 2017 HHMI BioInteractive Faculty Mentoring Network (FMN). HHMI BioInteractive is currently running another FMN during the Fall 2018 semester.

This resource was nominated for the ROW by a QUBES user who teaches an introductory biology class at Radford University and found this resource to be a great way to teach natural selection because students are able to work with real data and also learn how to use Excel during the process.

If you would like to nominate a QUBES resource for the ROW, please send your nominations to Elia Crisucci at emc22 “at” pitt.edu. It is helpful if you include a short description of why you think the resource should be featured as a ROW.