PROJECT TITLE: Genomics of Evolution and Adaptation in Darwin’s Finches

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Project Description

Darwin’s Galapagos Finches are a classic example of an adaptive radiation, with many forces influencing population dynamics including interspecific competition (competition between species), local adaptation, migration, and hybridization. The Petren/Lawson lab studies the evolutionary forces within this model system in order to better understand the processes of adaptation and evolution as a whole.

The main goals for summer research in the lab will be using genomic DNA to evaluate local adaptation to different island conditions within the Galapagos Archipelago. Students in our lab will primarily use genomic techniques to look at regions of population differentiation (and similarity) and gene flow. Depending upon interests and experience, students could also focus on GIS and/or morphometrics which are part of the larger project. Summer students in our lab will also collaborate with Ph.D. students and other undergraduate students working on this system.