

BSGS PRESENTS

ADAPTIVE CAPACITY IN WILDLIFE POPULATIONS: A CASE STUDY OF A UNIQUE DISEASE

Wildlife populations face threats from climate change, invasive species, habitat modification, disease, and other factors. Evolutionary biology and genomics provide powerful tools for assessing the capacity of populations to adapt and persist. As a case study for adaptive capacity, I focus on a unique disease that threatens the persistence of Tasmanian devils. Devil facial tumor disease (DFTD) is a transmissible cancer that has spread across the species range. Using genomic techniques, we have found evidence of rapid evolution in response to DFTD, a genetic basis for disease-related phenotypes, and widespread evidence of selection across the devil genome. These results help us assess the capacity of devil populations to adapt to threats, including transmissible cancers, and can help guide the management of both wild and captive devil populations.



DR. PAUL HOHENLOHE

Associate Professor, Director,
Bioinformatics and Computational
Biology Graduate Program at the
University of Idaho



NOMINATED BY THE BIOS
GRAD STUDENTS

**MONDAY, FEBRUARY
12TH AT 4 PM**

in Irvine 159

JOIN US IN THE LSB LUNCH
ROOM FOLLOWING THE TALK
FOR PIZZA WITH DR.
HOHENLOHE