## "The genetic basis of adaptation and speciation in house mice"

Michael Nachman,
Museum of
Vertebrate Zoology &
Dept of Integrative
Biology,
UC Berkeley



Though not explicitly related to Animal Behavior, research in the Nachman lab addresses a range of basic questions in population genetics and genomics. Broadly, they study how genetic variation in natural populations is shaped by the forces of migration, mutation, selection, recombination, drift, and changes in population size. Many of these characteristics are influenced by Animal Behavior. They study the genetic details of how new species arise and how the underlying genetic variation is related to phenotypic adaptation. Most of the work is on mammals with a particular emphasis on humans and mice.

For BIO342 class credit, attend the seminar and read the recent eLIFE publication (<a href="http://ib.berkeley.edu/labs/nachman/pdfs/MPRelife\_2.pdf">http://ib.berkeley.edu/labs/nachman/pdfs/MPRelife\_2.pdf</a> also available linked from the course syllabus) and type up a short seminar report (<1 page). In your report, describe 3 behavioral traits that have evolved in house mice and what is known about the genetic basis for these behaviors.

DUE no later than class Sept 25th