

MATTHEW D. MACMANES, PH.D

PROFESSIONAL PREPARATION

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|------------------------------------|---|-------------------|
| UNIVERSITY OF MICHIGAN | NATURAL RESOURCES | B.S. 2005 |
| UNIVERSITY OF CALIFORNIA, BERKELEY | INTEGRATIVE BIOLOGY PI: EILEEN LACEY | PH.D. 2011 |
| UNIVERSITY OF CALIFORNIA, BERKELEY | CALIFORNIA INSTITUTE FOR QUANT. BIOSCI. PI: MICHAEL EISEN | POSTDOC 2011-2013 |

PUBLICATIONS

1. QUAN, Y. F., **M. D. MACMANES**, L. A. EBENSBERGER, E. A. LACEY AND L. D. HAYES, 2009 Isolation and characterization of polymorphic microsatellite loci from *Octodon degus*. *Molecular Ecology Resources*: 3. <http://dx.doi.org/10.1111/j.1755-0998.2009.02536.x>
2. BENEDICT, L., **M. D. MACMANES**, J. FUCHS and R. C. K. BOWIE, 2010 When non-coding is non- neutral: the role of CHD1 gene polymorphism in sexing, in phylogenetics and as a correlate of fitness in birds. *Ibis*: 1-3. <http://dx.doi.org/10.1111/j.1474-919X.2010.01015.x>
3. ROWE, K., S. SINGHAL, **M.D. MACMANES**, J. AYROLES, T.L. MORELLI, E.M. RUBRIDGE, K. BI, AND C.C. MORITZ. (2011) Museum genomics: Low cost and high accuracy genetic data from historical specimens. *Molecular Ecology Resources*. <http://dx.doi.org/10.1111/j.1755-0998.2011.03052.x>
4. **MACMANES. M.D.** (2011). Promiscuity in Mice (genus *Peromyscus*) is associated with increased Vaginal Bacterial Diversity. *Accepted*. *Naturwissenschaften*. <http://dx.doi.org/10.1007/s00114-011-0848-2>
5. **MACMANES. M.D.** and E.A. LACEY (2010). Promiscuity in mice is not associated with enhanced selection on MHC genes. *In revision*, *Molecular Ecology*.
6. **MACMANES. M.D.** and E.A. LACEY (2011). Behavioral Genomics: Using next-generation sequencing to identify genes underlying social behavior. *In revision*, *Molecular Ecology*.
7. **MACMANES. M.D.** and E.A. LACEY (2011). Differences in sexual behavior influence patterns of selection on genes underlying immune function. *submitted*, *Evolution*.

GRANTS AND FELLOWSHIPS

1. **NIH NRSA POSTDOCTORAL FELLOWSHIP** 1F32DK093227-01 (2011): Using genomics to understand physiologic water conservation in desert rodents
2. **TERAGRID SUPERCOMPUTING ALLOCATION** IBN100014 (2010): Analysis of next generation sequence data to advance evolutionary insights
3. **MVZ FELLOWSHIP (2010)**
4. **NSF DOCTORAL DISSERTATION IMPROVEMENT GRANT** 0909798 (2008): MHC and Mating Systems: Is sexual behavior related to selection on MHC genes?
5. **UC NRS MILDRED MATHIAS RESEARCH AWARD** (2007): For research conducted at Boyd Deep Canyon Desert Research Center.
6. **NSF GRADUATE RESEARCH FELLOWSHIP** (2007): Sexually transmitted disease as a driver of phenotypic and genotypic variability across the monogamy-promiscuity continuum in the genus *Peromyscus*
7. **MVZ MARTENS RESEARCH AWARD** (2006): For research conducted at Boyd Deep Canyon Desert Research Center.
8. **CALIFORNIA DESERT RESEARCH FUND AWARD** (2006): For research conducted at Boyd Deep Canyon Desert Research Center.

PRESENTATIONS

1. Summer 2011
Contributed Talk: "Understanding the relationship between sexual behavior, selection on immunogenes, and vaginal bacteria in peromyscine rodents" Evolution Conference. Norman, OK
2. Summer 2011
Contributed Talk: "Behavioral genomics:using transcriptome sequencing to identify genes influencing social behavior" Mammalogy Conference. Portland, OR
3. Summer 2010
Contributed Talk: "Scale matters: sex and selection on MHC genes in the genus *Peromyscus*" Evolution Conference. Portland, OR
4. Fall 2009
Contributed Talk: "Mating systems are continuous variables"
Animal Behavior Lunch Seminar Series, UC Berkeley
5. Summer 2009
Contributed Talk: "MHC and mating systems: Is sexual behavior related to selection on MHC genes?" Evolution Conference. Moscow, ID
6. Summer 2008
Contributed Poster: "MHC and mating systems: Is sexual behavior related to selection on MHC genes?"
International Society for Behavioral Ecology. Ithaca, NY
7. Spring 2008
Contributed Talk: "The genetic mating system of *Peromyscus eremicus*"
Animal Behavior Lunch Seminar Series, UC Berkeley

SYNERGISTIC ACTIVITIES

1. 2005- Current
Mentored Undergraduate Students
Served as a mentor for UC Berkeley undergraduates: Robert Beck (2006), Manpuneet Samra (2006), Katharine Lovett (2007), Quang Nguyen (2008) and Soo Ro in lab techniques
2. 2005- Current
Society Membership
SSE, ISBE, ASM, Sigma Xi,
3. 2006-2010
Childhood Education
Organized educational program (four events) that brought children to the Museum of Vertebrate Zoology to learn about biodiversity and conservation
4. 2005- Current
Peer Reviewer
NSF-BIO *ad hoc.*, J. Mammalogy, Behavioral Ecology, Southeastern Naturalist, Evolutionary Ecology
5. 2008-2010
Behavior Lunch Seminar Series
Coordinated speakers, schedules, and attendance for UC Berkeley Behavior Seminar Series.
6. 2008-2010
Graduate Admissions Committee Member
Served as graduate student representative on admissions committee. Evaluated applications, with specific attention to increasing minority representation.
7. 2005-2008
Minority Retention and Recruitment
Participation in the Berkeley EDGE, a NSF funded program with aims of increasing minority recruitment, retention, and advancement in science and engineering