

Katy J Califf

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EDUCATION

Michigan State University, 2013

Dual Ph.D. in Zoology and Ecology, Evolutionary Biology & Behavior

University of Washington, 2002

B.S. in Zoology

PEER-REVIEWED PUBLICATIONS

*Indicates undergraduate coauthor

Califf, K.J., *E.K. Ratzloff, A.P. Wagner, K.E. Holekamp & B.L. Williams. 2013. Forces shaping MHC evolution in two hyena species. *Journal of Mammalogy*. **94(2)**: 282-294.

Jensen, P.C., K. Califf, V. Lowe, L. Hauser and J. F. Morado. 2010. Molecular detection of *Hematodinium* sp. in Northeast Pacific *Chionocetes* spp. and evidence of two species in the Northern Hemisphere. *Diseases of Aquatic Organisms*. **89(2)**: 155-166.

PLATFORM PRESENTATIONS (contributed)

2012 Animal Behavior Society, Albuquerque, New Mexico

2011 Animal Behavior Society and the International Ethological Conference, Bloomington, Indiana

2011 American Society of Mammalogists, Portland, Oregon (poster)

2010 Society for the Study of Evolution, Portland, Oregon

FELLOWSHIPS, GRANTS AND AWARDS

College of Natural Sciences Dissertation Completion Fellowship, Michigan State University (2013)

Research Enhancement Award, The Graduate School, Michigan State University (2011 & 2008)

Sigma Xi Grants-in-Aid of Research (2010)

Grant-in-Aid of Research, American Society of Mammalogists (2010 & 2009)

Travel fellowship, Ecology, Evolutionary Biology and Behavior Program, Michigan State University (2010)

Travel fellowship, Department of Zoology, Michigan State University (2010)

College of Natural Sciences Dissertation Continuation Fellowship, Michigan State University (2009)

Dr. Marvin Hensley Endowed Scholarship in Zoology, Department of Zoology, Michigan State University (2008)

National Science Foundation Graduate Research Fellowship (2007)

College of Natural Sciences Recruiting Fellowship, Michigan State University (2006)

National Science Foundation Graduate Research Fellowship Honorable Mention (2005)

Oak Ridge Institute for Science and Education Fellowship (2002-2003 and 2004-2005)

Dean's List University of Washington (2000 - 2002)

RESEARCH EXPERIENCE

Doctoral dissertation research conducted at Michigan State University under Dr. Kay Holekamp (Distinguished University Professor of Zoology and EEBB Program director). Gained proficiency in many molecular genetics methods, including but not limited to: DNA cloning and sequencing and population genetics analysis. *Dissertation topic:* Diversity of major histocompatibility genes in the family Hyaenidae. Summer 2006 - present.

Behavioral data collection on free-living spotted hyenas (*Crocuta crocuta*) under Dr. Kay Holekamp and the Michigan State University Hyena Project in Kenya, East Africa. Summers 2006 -2009.

Research zoologist in pathobiology group at the National Oceanic and Atmospheric Administration (NOAA)/National Marine Fisheries Services (NMFS) under Dr. J. Frank Morado. Research focused on investigating the impacts and trends in disease in fish and invertebrates using molecular ecology. Work included DNA sequencing and phylogenetic analysis. Field collections conducted in Kodiak, Alaska, and in the Bering Sea. July 2004 - May 2006.

Research technician at the Fred Hutchinson Cancer Research Center in a cytogenetics lab conducting genome screening using fluorescence in-situ hybridization (FISH) and spectral karyotyping (SKY). September 2003 - July 2004

Volunteer field assistant tagging and branding California sea lions (*Zalophus californianus*) with the National Marine Mammal Laboratory (NMML) of the National Oceanic and Atmospheric Administration (NOAA) in Shilshole Bay, Washington, investigating population abundance and trends. Summer 2004.

Lab technician under Dr. Glenn VanBlaricom in the Washington Cooperative Fish and Wildlife Research Unit in the School of Aquatic and Fishery Sciences at the University of Washington. Participated in graduate studies optimizing DNA extractions from harbor seal fecal samples, and the identification of fatty acids in blubber to detect Steller sea lion (*Eumetopias jubatus*) foraging on ephemeral high-quality prey. June 2003 – April 2004.

Research apprentice under Drs. David Bain and Richard Osborne at Friday Harbor Laboratories, Washington State, studying field methods in marine mammalogy including acoustic vocalization recording and analysis, photo identification, and on-shore theodolite tracking. Completed individual research project: Association patterns of killer whales (*Orcinus orca*). Spring 2003.

Internship with the National Oceanic and Atmospheric Administration (NOAA)/National Marine Fisheries Services (NMFS) under Dr. Michelle Moore and Dr. J. Frank Morado. Identifying and quantifying parasites of Steller sea lions (*E. jubatus*). September 2002 – April 2003

Volunteer nocturnal mammal animal care assistant at Woodland Park Zoological Gardens, Seattle WA. April 2001 – September 2002.

TEACHING EXPERIENCE

Graduate teacher's assistant for Cellular and Molecular Biology Lab (BS171) at Michigan State University. Fall 2011 & 2012; Spring 2012.

Graduate teacher's assistant for Fundamental Genetics (ZOL 341) at Michigan State University. Summer 2012.

Graduate teacher's assistant for Biology of Mammals (ZOL 365) at Michigan State University. Spring 2010.

Instructor of Behavioral Ecology of African Mammals (BEAM; ZOL 490) Michigan State University study abroad course in Kenya, East Africa. Summers 2007, 2008 and 2009.

Graduate teacher's assistant for Animal Behavior (ZOL 313) at Michigan State University. Fall 2008.

Graduate teacher's assistant for Honors Animal Behavior section (ZOL 313) at Michigan State University. Fall 2008.

INVITED TALKS

Guest lecturer, Ecological Aspects of Behavior (ZOL 415). Fall 2012.

Invited lecture, Great Basin College, Biology Department, Summer 2012.

Guest speaker for high school level summer course in Behavioral Ecology at the Potter Park Zoo, Lansing, MI, Summer 2012.

Invited lecture, University of Oregon, Behavioral Anthropology Department, Summer 2012.

Member of post-graduate panel speaking to Honors Introduction to Ecology students (ZOL 355), Michigan State, Fall 2011.

Michigan State University Veterinary Student International Club and Behavior Club. Fall 2011.

Guest lecturer, Ecological Aspects of Behavior (ZOL 415). Spring 2011.

Member of post-graduate panel speaking to the Michigan State Zoological Students Association (ZSA). Fall 2010.

Ecology, Evolutionary Biology and Behavior Graduate Colloquium Seminar. Spring 2010.

Michigan State University Student Chapter of the American Veterinary Society of Animal Behavior (SV-AVSAB). Fall 2009.

Brain and Behavior Group Seminar, Michigan State University, Spring 2009.

Evolution of Uganda's Forest Biodiversity: Apes to Aves (Study abroad: ZOL 490); guest lecturer. Summer 2009.

MEDIA COVERAGE

Guest blogger for BEACON Center for the Study of Evolution in Action "Researchers at Work" blog. Summer 2012.

<http://beacon-center.org/blog/2012/07/16/beacon-researchers-at-work-does-sociality-influence-disease-resistance/>

Pictures of spotted hyena captive colony featured in article in the Berkeley Science Review, 2011.

<http://sciencereview.berkeley.edu/berkeley-hyenas-alive-and-well-for-now/>

Work with Kila Nafasi documented in MSU Alumni magazine. "Help for Kenya Kids." 2009.

https://www.msu.edu/user/fliesand/documents/F2_Kenya%20Research.pdf

Interview regarding receipt of the NSF Predoctoral Fellowship. MSU *The Graduate Post*. 2008.

<http://grad.msu.edu/graduatepost/docs/s08externalfellowship.pdf>

COMMUNITY SERVICE

Graduate mentor for the University Undergraduate Research and Arts Forum, Cell Biology. Michigan State University, 2011.

Volunteer team mentor for a marathon training group with the Leukemia & Lymphoma Society and Team in Training. 2011.

Career day presenter at Friends School. Detroit, MI 2010.

Citizen lobbyist for the Sierra Club at Michigan State Legislature. 2009-2010.

Presenter at the Ingham School District Girls Math and Science Conference. 2007-2009.

Founder and Director of Kila Nafasi, a non-profit organization supporting education of Kenyan girls. 2006-2010.

Volunteer for the Humane Society of America, 1999-2001.

PROFESSIONAL SERVICE

Darwin Day Presenter, Michigan State University Museum. (2011-2013).

President of the graduate student colloquium group for the Ecology, Evolutionary Biology and Behavior Program at Michigan State University. (2008-2009).

PROFESSIONAL SOCIETY MEMBERSHIPS

American Society of Mammalogists

Animal Behavior Society

European Society for Evolutionary Biology

National Geographic Society

National Resource Defense Council

Nature Conservancy

Sierra Club

Sigma Xi

Society for the Study of Evolution

OTHER SKILLS

Population Genetics Computer Programs: BioEdit, Cervus, DNAsp, MEGA, MRBAYES, omegaMap, PAML, PhyML, RELATEDNESS, Staden

R Statistical Package

Microsoft Office: Access, Excel, PowerPoint, Word

Driving: 4WD and manual transmission

Photo identification

Radio-telemetry

SCUBA certified

Speaks rudimentary Swahili