

Annabel Beichman

Ph.D. Candidate, [Wayne Lab](#) & [Lohmueller Lab](#)
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EDUCATION

University of California, Los Angeles, CA
Ph.D. Candidate, co-advised by Dr. Robert Wayne and Dr. Kirk Lohmueller
Ecology & Evolutionary Biology (2013-Present)

Harvard University, Cambridge, MA
A.B., *summa cum laude*, Organismic & Evolutionary Biology (2008-2012)
Secondary Field: Celtic Languages & Literatures

PUBLICATIONS

Sura S.A., L.L. Smith, M.R. Ambrose, C.E.G. Amorim, **A.C. Beichman**, et al. 2019. Ten simple rules for giving an effective academic job talk. *PLoS Computational Biology* 15(7): e1007163.
<https://doi.org/10.1371/journal.pcbi.1007163>

Beichman, A. C., K.P. Koepfli, G. Li, W. Murphy, P. Dobrynin, S. Kilver, M. T. Tinker, M. J. Murray, J. Johnson, K. Lindblad-Toh, E. K. Karlsson, K. E. Lohmueller, R. K. Wayne. 2019. "Aquatic adaptation and depleted diversity: a deep dive into the genomes of the sea otter and giant otter." *Molecular Biology & Evolution*, msz101, <https://doi.org/10.1093/molbev/msz101>

Beichman, A. C., E. Huerta-Sanchez, K. E. Lohmueller. 2018. "Using Genomic Data to Infer Historic Population Dynamics of Non-Model Organisms." *Annual Review of Ecology, Evolution, and Systematics* 49: 433-456.

Beichman, A. C., T. Phung, K. E. Lohmueller. 2017. "Comparison of single genome and allele frequency data reveals discordant demographic histories." *G3: Genes|Genomes|Genetics*. doi.org/10.1534/g3.117.300259

Sanders, J. G., **A. C. Beichman**, J. Roman, J. J. Scott, D. Emerson, J. J. McCarthy, and P. R. Girguis. 2015. "Baleen Whales Host a Unique Gut Microbiome with Similarities to Both Carnivores and Herbivores." *Nature Communications* 6 (September): 8285. doi:10.1038/ncomms9285.

GRANTS AND AWARDS

Fitch Award Finalist, SMBE (2019)
National Science Foundation Graduate Research Fellowship (NSF GRFP) (2015-2019)
NIH Genomic Analysis Training Program Training Grant (2014-2016)
UCLA Pauley Fellowship (2013, 2019)
Henry Russell Shaw Summer Fellowship (2012)
Junior 24 Phi Beta Kappa (2011)
Museum of Comparative Zoology Grant for Undergraduate Research (2011)
Alex G. Booth '30 Fund Fellowship (2011)
Herchel-Smith Summer Undergraduate Research Fellowship (2010)
Detur Book Prize (2009)
John Harvard Scholar (2009, 2010)

PAST RESEARCH

Senior Thesis

2011 – 2012

Harvard University, Girguis & McCarthy Labs

“Gut Flora of the North Atlantic Right Whale: the 0.2 micron inhabitants of a 17 meter Leviathan.”

Advisers: James McCarthy, Peter Girguis (Harvard) and Joe Roman (Gund Institute)

Summer Research Internship

Summer 2010

Stanford University, Hopkins Marine Station, Palumbi Lab

Advisers: Steve Palumbi & Melissa Pespeni

Undergraduate Lab Assistant

2009 – 2011

Harvard University, Edwards Lab

Advisers: Scott Edwards & Miguel Alcaide

TEACHING ASSISTANTSHIPS

Ecology & Evolutionary Biology 135/235: Population Genetics

Spring 2018

Professor: Kirk Lohmueller

Society & Genetics 108: Human Biology, Genetics, and Society

Spring 2017

Professor: Christopher Kelty

LS 15: Life: Concepts & Issues

Spring 2016

Professor: Jay Phelan

SERVICE

Graduate student member of population genetics faculty search committee (UCLA, 2017)

Reviewer for *Nature Genetics*, *Molecular Biology & Evolution*, *Conservation Genetics*, *Marine Ecology Progress Series*, *Antonie van Leeuwenhoek Journal of Microbiology*

Organizing workshops for middle school children to learn about natural history and evolution

Training graduate students in demographic inference at the La Kretz Conservation Genomics Workshop

Mentoring two female undergraduates (Amber deVries and Pooneh Kalhori), which included training in advanced laboratory, computational, and population genetics analyses, collaboration on publications (in prep), attending academic conferences, and help applying to graduate research programs

PRESENTATIONS

Genome 10K & Vertebrate Genome Project Annual Meeting (Rockefeller University, NY), Annabel Beichman, “Aquatic adaptation and fur trade devastation: a deep dive into the genomes of the sea otter and giant otter,” [invited talk, 20 min oral presentation], August 28, 2019

Society for Molecular Biology & Evolution (SMBE) Meeting (Manchester, UK), Fitch Symposium, Annabel Beichman, “Aquatic adaptation and fur trade devastation: a deep dive into the genomes of the sea otter and giant otter,” [15 min oral presentation], July 23, 2019

Plant and Animal Genome (PAG) Conference XXVII (San Diego, CA), Annabel Beichman, “Aquatic adaptation and depleted diversity: a deep dive into the genomes of the sea otter and giant otter,” [20 min oral presentation], January 12, 2019

UC Conservation Genomics Consortium Workshop (Asilomar, CA), Annabel Beichman, “Sea otter demographic history, diversity and deleterious variation,” [20 min oral presentation], November 9, 2018

La Kretz Conservation Genomics Workshop (Los Angeles, CA), Annabel Beichman & Kirk Lohmueller, “Whole-genome vs. SFS based demographic inference methods: choices, comparisons and caveats,” [60 min workshop presentation], March 26, 2018

Southern Sea Otter Research Update Meeting (Santa Cruz, CA), “Sea Otter Genomics: First Findings & Project Progress,” [20 min. oral presentation], March 20, 2018

UC Conservation Genomics Consortium PI Meeting & Workshop (San Jose, CA), “Sea Otter Genomics,” [10 min oral presentation], August 15-18, 2017.

La Kretz Conservation Genomics Workshop (Los Angeles, CA), Annabel Beichman & Kirk Lohmueller, “Comparison of single genome and allele frequency data reveals discordant demographic histories,” [60 min workshop presentation], March 25-29, 2017

Global Biodiversity Genomics Conference (Smithsonian Institute, Washington DC), “Comparison of single genome and allele frequency data reveals discordant demographic histories,” [20 min oral presentation], February 21-23, 2017

Southern California Academy of Sciences 2016 Annual Meeting (Los Angeles, CA), “The Paradox of the Whale Gut Microbiome: Baleen Whales Host a Unique Bacterial Community with Similarities to both Carnivores and Herbivores,” [20 min. talk], May 2016.

BWF-CHIP, GATP, & SIB Research Symposium (UCLA), “The Potential Impacts of Exploitation on Modern Sea Otter Genomes” [Poster], Winner — Best Poster, April 2016

2016 NHGRI Annual Meeting (Bethesda, MD), “The Paradox of the Whale Gut Microbiome” [Poster], April 2016

American Cetacean Society, Los Angeles Chapter, Monthly Seminar (San Pedro, CA), “The Paradox of the Whale Gut Microbiome” [60 min. public talk], March 2016

Southern Sea Otter Research Update Meeting (Santa Cruz, CA), “The Potential Impacts of Exploitation on Modern Sea Otter Genomes,” [20 min. talk], February 2016

Ecology & Evolutionary Biology Pub Seminar Series (UCLA), “The Paradox of the Whale Gut Microbiome,” [30 min. talk], January 2016

21st Biennial Society for Marine Mammalogy Conference (San Francisco, CA) “The whale gut microbiome digests a carnivorous diet using pathways common in terrestrial herbivores,” [15 min. talk], December 2015

Monterey Bay Aquarium Brown Bag Seminar Series (Monterey, CA) “Sea Otter Genomics: Impacts of Exploitation on Marine Mammal Genomes,” [60 min. talk], September 2015

BWF-CHIP, GATP, & SIB Research Symposium (UCLA) “The whale gut microbiome digests a carnivorous diet using pathways common in terrestrial herbivores,” [15 min. talk], May 2015

UC Santa Cruz, “Insights into the Whale Gut Microbiome,” [30 min. talk], March 2013