

# LAURIE ANNE HALL

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1674 Cypress Ave., Richmond, CA 94805

## EDUCATION

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**Ph.D. Candidate** in Environmental Science, Policy, and Management (expected May 2015)

University of California at Berkeley, Berkeley, CA

**M.S. Marine Science** (2008)

Moss Landing Marine Laboratories of California State University, Moss Landing, CA

**B.S. Marine Science** (2002)

Southampton College of Long Island University, Southampton, NY

## DISSERTATION RESEARCH

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### **Rail Project Field and Laboratory Research Coordinator**

University of California at Berkeley, Berkeley, CA; 2009-Present

- Train and supervise teams of three to four field technicians and undergraduates in collection of occupancy data for black and Virginia rails using call playback surveys during five field seasons
- Lead field teams and public volunteers to capture rails for banding, radio telemetry, and blood and feather sample collection
- Obtain permission from private and public land managers to access wetlands for rail research
- Train seven undergraduates to work independently in the lab preparing feather samples for stable isotope analysis and performing DNA extraction, PCR, and sequencing of genetic samples
- Analyze genetic, stable isotope, radio telemetry, occupancy, and landscape data to understand metapopulation dynamics and rail connectivity
- Engage with the scientific community and public through presentations of Rail Project research
- Assist with grant writing including preparation of a successful NSF DEB grant to fund the Rail Project

## PUBLICATIONS

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**Hall, L.A.** and Beissinger, S.R. 2014. A practical toolbox for landscape genetics studies. *Landscape Ecology*, DOI 10.1007/s10980-014-0082-3

Vasquez-Carillo, C., Friesen, V., **Hall, L.**, and Peery, M. Z. 2014. Variation in MHC class II B genes in marbled murrelets: implications for delineating conservation units. *Animal Conservation* 17(3): 244-255.

Peery, M. Z., **Hall, L. A.**, Sellas, A., Beissinger, S., Moritz, C., Bérubé, M., Raphael, M., Nelson, K., Golightly, R., McFarlane-Tranquilla, L., Newman, S., and Palsbøll, P. J. 2010. Genetic analyses of historic and modern marbled murrelets suggest decoupling of migration and gene flow after habitat fragmentation. *Proceeding of the Royal Society of London B* 277:697-706.

**Hall, L. A.**, Harvey, J. T., Palsbøll, P. J., Bérubé, M., Golightly, R., Newman, S., Raphael, M., McFarlane-Tranquilla, L., Nelson, S. K., Peery, M. Z. 2009. Characterizing dispersal patterns in a threatened seabird with limited genetic structure. *Molecular Ecology* 18:5074-5085.

Peery, M. Z., Beissinger, S. R., House, R. H., Bérubé, M., **Hall, L. A.**, Selas, A., and Palsbøll, P. J. 2008. Characterizing source-sink dynamics with genetic parentage assignments. *Ecology* 89:2746-2759.

## TEACHING EXPERIENCE

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### Lecture Experience

#### **Graduate Student Instructor, Wildlife Ecology**

University of California, Berkeley; Spring 2011

- Lectured weekly to approximately 50 lower division undergraduates
- Facilitated group activities and discussion of course material
- Worked one-on-one with students during office hours and by appointment
- Assisted students with design and execution of wildlife survey projects
- Created rubrics for grading quantitative problem sets, quizzes, and exams

#### **Graduate Student Instructor, Principles of Conservation Biology**

University of California, Berkeley; Fall 2010

- Lectured weekly to approximately 50 upper division undergraduates
- Facilitated discussions, computer labs, and group activities
- Worked one-on-one with students during office hours and by appointment
- Assisted with exam writing
- Created rubrics for grading term papers, quantitative problem sets, and exams

**Invited Lectures**, University of California at Berkeley

Introduction to Molecular Ecology, Spring 2010

Principles of Conservation Biology, Fall 2010

Wildlife Ecology, Spring 2011 and 2012

Ornithology, Spring 2013

Principles of Conservation Biology, Fall 2014

Laboratory Instruction

**Teaching Assistant, Molecular Ecology**

Moss Landing Marine Laboratories; Spring 2008

- Demonstrated laboratory techniques weekly to 12 graduate students
- Prepared reagents for molecular lab activities
- Worked one-on-one with students to design and carry out a molecular experiment

**Teaching Assistant, Marine Mammal, Bird, and Turtle Science**

Moss Landing Marine Laboratories; Fall 2005

- Designed and taught weekly marine vertebrate ecology labs for 20 graduate students
- Demonstrated techniques for necropsy and museum specimen preparation
- Prepared a final exam to test student's ability to identify marine vertebrate species
- Assisted instructor with lecture preparation and grading
- Maintained course website
- Assisted students with design and data collection for semester-long research projects

Community Engagement

**Teaching Assistant, Marine Biotechnology and Bioinformatics**

Moss Landing Marine Laboratories; 2004-2006

Increased teaching of STEM subjects and activities in high schools and middle schools in central California by:

- Designing biotechnology and bioinformatics lessons and labs
- Teaching high school and middle school teachers how to execute lessons and labs
- Facilitating lessons and labs through classroom visits to local schools

**Directed Research Leader, Marine Biology**

Aquatic Adventures; Summer 2006

- Designed and implemented an experiment to test the effectiveness of sea turtle deterrents attached to fishing gear in Bahia de Los Angeles, MX
- Supervised and assisted 6 high school students with data collection, analysis, and presentation of experimental results
- Collaborated with local fishermen to set fishing gear and collect data

**MENTORING EXPERIENCE**

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Undergraduates:

- Maybellene Gamboa 2010-2013, currently pursuing a Ph.D. at Colorado State University and preparing a manuscript from our stable isotope research
- Clinton Cleveland 2010-2011, currently pursuing an M.S. at Presidio College of San Francisco
- Nadejda Najar 2011, currently pursuing a Ph.D. at the University of Northern Colorado
- Cassandra Stegall 2012-2013, currently applying for medical school
- Christine Chu 2013, currently studying abroad in Ghana
- Tram Nguyen 2013-Present, currently collecting and analyzing genetic data for a manuscript we are co-writing on black rail phylogeography
- Tierne Nickel 2014-Present, currently preparing samples for stable isotope analysis and preparing applications for fellowships and graduate schools

## FIELD & LABORATORY EXPERIENCE

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### Clapper Rail Surveyor

Point Reyes Bird Observatory, Petaluma, CA; 2011-2013

Survey San Francisco Bay Area wetlands for Clapper Rails and other wetland bird species using call counts.

### Survey Coordinator

Moss Landing Marine Laboratories, Moss Landing, CA; June-September 2008

Coordinate and execute boat-based line transect surveys for population estimates of Marbled Murrelets in central California.

### Laboratory Technician

Moss Landing Marine Laboratories, Moss Landing, CA; September 2007-December 2008

Perform DNA extraction, PCR, and sequencing of microsatellite markers for Marbled Murrelet research

### Aerial Survey Marine Mammal and Turtle Observer

SWFSC Marine Turtle Program, Moss Landing, CA; 2004-2008

Observers identify and measure sighting angles for marine mammals and turtles seen during aerial line transect surveys performed along the coast of central California.

### Marine Mammal and Turtle Stranding Network Coordinator

Moss Landing Marine Laboratories, Moss Landing, CA; 2004-2006

Arranged for rescue of live-stranded marine mammals and turtles and collected morphometric measurements and coordinated necropsies for dead-stranded animals in Monterey County, California.

### Biological Monitor

Golden State Construction, Moss Landing, CA; Summer and Fall 2005

Counted and observed marine birds and mammals in the vicinity of the Sandholdt bridge construction site to assess the environmental impact of construction activities.

### Laboratory Technician

Plum Island Animal Disease Center, USDA, Orient Pt., NY; Summer 2002 & 2003

Assisted with research including cloning, restriction digest, protein extraction and purification, bacterial and mammalian cell culture, radionucleotide experiments, transfection, and virus titrations for development of a foot and mouth disease vaccine.

## PRESENTATIONS

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**Hall, L.A.** and Beissinger, S.R. Population dynamics, connectivity, and habitat use of rails in Northern California. Presentation at the Yolo Audubon Society meeting, 17 September, 2014. Davis, CA.

**Hall, L.A.** and Beissinger, S.R. Inferring dispersal processes from occupancy patterns: Validation with parentage assignments in a rail metapopulation. Presentation at the Ecological Society of America Symposium, 11-15 August 2014. Sacramento, CA.

Gamboa, M., **Hall, L. A.**, Cleveland, C., Hsu, W., Tecklin, J., and Beissinger, S. R. Under Cover: Niche overlap in secretive rails. Presentation at the Wildlife Society meeting, 28-31 January 2014. Reno, NV.

**Hall, L.A.** and Beissinger, S.R. Inferring process from pattern: Testing dispersal estimates from occupancy models. Presentation at the Bay Area Conservation Biology Symposium, 4 May 2013. Davis, CA.

Gamboa, M., Cleveland, C., **Hall, L. A.**, Beissinger, S. R. Home range overlap and resource partitioning in two sympatric wetland birds. Poster presented at the Society for Conservation Biology North American Congress, 15-18 July 2012. Oakland, CA.

**Hall, L.A.** and Beissinger, S.R. Inferring process from pattern: measuring connectivity using metapopulation dynamics. Presentation at the Wildlife and Fisheries Seminar Series at the University of California, Berkeley, 3 March, 2012. Berkeley, CA.

**Hall, L.A.** and Beissinger, S.R. Population dynamics, connectivity, and habitat use of rails in Northern

California. Presentation at the AltaCal Audubon Society meeting, 16 May, 2011. Chico, CA.  
Beissinger, S. R., Girard, P., Takekawa, J. Y., and **Hall, L. A.** Connectivity within and between  
black rail metapopulations: Implications for persisting under rising sea-levels. Poster  
presented at the Bay-Delta Science Conference, 20-22 September 2010. Sacramento,  
CA.

## **OUTREACH & SERVICE**

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### **Research websites**

Laurie Hall: [http://ourenvironment.berkeley.edu/people\\_profiles/laurie-a-hall/](http://ourenvironment.berkeley.edu/people_profiles/laurie-a-hall/)

The Black Rail Project: <http://nature.berkeley.edu/~beis/rail/html/index.html>

**Leadership committee**, Society for Conservation Biology Berkeley Student Chapter, 2010-Present  
**Coordinator**, Bring Your Own Mug reusable mug distribution in Berkeley on Earth Day, 2014

**Wetland restoration volunteer**, Save the Bay and Pt. Isabel Restoration, 2010-present

**Avian biodiversity survey leader**, Golden Gate National Recreation Area BioBlitz, March 2014

**Logistics volunteer**, Expanding Your Horizons STEM workshops for middle school girls, March 2014

## **GRANTS**

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**Student Activism Grant**, University of California at Berkeley Graduate Assembly 2014

**Travel Grant**, University of California at Berkeley ESPM Dept. 2014

**Travel Grant**, University of California at Berkeley ESPM Dept. 2010

**Research Grant**, Packard Foundation 2008

**Research Grant**, Lerner-Gray Fund for Marine Research 2006

**Research Grant**, American Cetacean Society, Monterey Bay Chapter 2006

**Research Grant**, Dr. Earl H. and Ethel M. Myers Oceanographic and Marine Biology Trust 2006

## **SOCIETAL AFFILIATIONS**

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The Ecological Society of America, 2014-Present

Society for Conservation Biology Berkeley Student Chapter, 2010-Present

American Ornithologists Union 2009-Present