

**CURRICULUM VITÆ
ERIC STEVEN ABELSON**

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PROFESSIONAL PREPARATION

Postdoctoral Scholar

**PACIFIC SOUTHWEST RESEARCH STATION
& UNIVERSITY OF CALIFORNIA, DAVIS**

2015-present

United States Forest Service, Davis, CA & U.C. Davis, John Muir Institute of the Environment, Davis, CA

Wildlife movement ecology and linear barriers at a landscape scale; small-mammal genetic connectivity at the roadside; intraspecies movement modeling – lessons from movement behavior in migratory and non-migratory deer

Advisor: Dr. Patricia Manley

La Kretz Conservation Postdoctoral Fellow

UNIVERSITY OF CALIFORNIA, LOS ANGELES

2014-2015

U.C.L.A. La Kretz Center for California Conservation Science, Los Angeles, CA

Wildlife behavior and movement ecology in anthropogenic landscapes.

Advisors: Drs. Daniel Blumstein (U.C.L.A.) and Seth Riley (National Park Service)

Ph.D. STANFORD UNIVERSITY

2013

Department of Biological Sciences, Palo Alto, CA

Wildlife behavior, relative encephalization and extinction.

Advisors: Dr. Rodolfo Dirzo. Committee: Drs. Gretchen Daily, Deborah Gordon & Lucia Jacobs

M.S. STANFORD UNIVERSITY

2008

Department of Biological Sciences, Palo Alto, CA

Systematic bias in camera-trap data caused by wildlife behavior.

Advisor: Dr. Rodolfo Dirzo.

GPA: 4.0/4.0

B.S. UNIVERSITY OF CALIFORNIA, BERKELEY

2005

Department of Environmental Science Policy and Management, Berkeley, CA

Minor in Forestry and Natural Resources.

Honors Thesis: *Tracking as a wildlife survey technique; a comparative analysis of tracking, camera traps and direct observation.*

Advisor: Dr. Reginald Barrett.

GPA: 3.9/4.0

APPOINTMENTS and EMPLOYMENT

Instructor/Researcher – Jasper Ridge Biological Preserve, Stanford University	2013-present
Visiting Scholar – U.C. Davis, John Muir Institute of the Environment	2015-present
Visiting Scholar – U.C. Los Angeles	2015-present
Research Biologist. JDR Environmental, Martinez, CA.	2013-2014
Biological Research Graduate Intern.	
San Francisco Public Utility Commission, San Francisco, CA.	2013
Computer Consultant, Audio Engineer. Segue Music, West Hollywood, CA.	1998-2001

RESEARCH INTERESTS

Mammalian conservation, conservation biology, mammalian extinction, animal behavior, wildlife at urban/wildland boundaries and fragmented habitats, biogeography and climate-driven changes to species ranges, ecosystem functioning, remote detection/tracking of wildlife, minimally invasive techniques in wildlife biology, biological applications of computer science.

PUBLICATIONS and PATENTS

Abelson, E.S. Big Brains Reduce Extinction Risk in Carnivora. (*Oecologia*) *in review*.

Boyston, E.E., **E.S. Abelson**, *A. Kazanjian, D.T. Blumstein. Canid vs. canid: insights into coyote-dog encounters from social media. (*Human Wildlife Interactions*) *in review*.

Abelson, E.S. Brain size is correlated with endangerment status in mammals. *Proc. R. Soc. B*. Vol. 283. No. 1825. The Royal Society, 2016.

Garcia-Molina, H., *S. Kandel, A. Paepcke, M. Theobald, and **E.S. Abelson**. 'Spreadsheet System and Method for Managing Photos,' Patent publication number: US 2010/0058163 A1
U.S. Classification: 715/220

Sundaresan, S., C. Riginos, **E.S. Abelson**. Storage and Analysis of Camera Trap Data: Alternative Approaches (Response to Harris *et al.* 2010). *The Bulletin of the Ecological Society of America* 92.2 (2011): 188-195.

Kandel, S., **E.S. Abelson**, H. Garcia-Molina, A. Paepcke & M. Theobald. 2008. PhotoSpread: A Spreadsheet for Managing Photos. *Computer/Human Interactions, 2008 Proceedings* 1749-1758
Available online at: <http://dbpubs.stanford.edu:8090/pub/2007-28>

PUBLICATIONS in PREPARATION

*Neco, L.C., **E.S. Abelson**, B. Natterson-Horowitz, D.T. Blumstein. The Evolution of Self-Medication Behavior in Mammals.

*Nojumi, M., **E.S. Abelson**, A.P. Clevenger, D.T. Blumstein. Vehicular Traffic Effects on Elk and White-tailed Deer at Wildlife Crossings in Banff National Park.

* **indicates undergraduate co-author**

GRANTS AND HONORS

UCLA La Kretz Center for California Conservation Science, Post-doctoral Fellowship.
2014-2015

Southern California Research Learning Center's Grant Program, 2014-2016

National Science Foundation Dissertation Improvement Grant, 2011-2013

Woods Institute for the Environment, Stanford University, Rising Environmental Leader
2012

Stanford Ecology & Evolutionary Biology Travel Grant, 2012

#SciFund Challenge, 2011

Stanford SCORE Grant, 2009 & 2010

National Science Foundation Graduate Research Fellowship, Honorable Mention, 2008

Gomez Grant for Wildlife Ecology, 2007

U.C. Berkeley Grants and Honors:

- Highest honors in Conservation and Resource Studies, University of California, Berkeley. 2005
- Honors in the College of Natural Resources, University of California, Berkeley. 2005
- University Honors, University of California, Berkeley. 2003-2005
- Rosentiel Grant, 2005
- Student Life Advising Grant, University of California, Berkeley, 2005
- Undergraduate Research Opportunities Program Grant, College of Natural Resources, 2005
- Allmond Scholarship, 2003-2004
- Isais Hellman Scholarship, 2003-2004
- University of California at Berkeley University Grant 2003-2004
- Beth Blanchette Memorial Scholarship, 2003

TEACHING

Guest Lecturer, Stanford Biology 105, Ecology and Natural History of Jasper Ridge Biological Preserve. *Wildlife ecology and tracking*. Stanford University, Stanford, CA. Winter 2009-2018

Guest Lecturer, UCSC Environmental Science 169, Global Change Ecology. *Climate change and wildlife*. University of California, Santa Cruz, Santa Cruz, CA. Winter 2014

Guest Lecturer, UCSC Environmental Science 104A. Introduction to Environmental Field Methods. *Wildlife survey methods, monitoring and behavioral data collection*. University of California, Santa Cruz, Santa Cruz, CA. Summer 2013

Teaching Assistant, Stanford Biology 312. *Ethical Issues in Ecology and Evolutionary Biology*. Stanford University, Stanford, CA. Autumn 2008

Teaching Assistant, Stanford Biology 145/245. *Behavioral Ecology*. Stanford University, Stanford, CA. Spring 2008

OUTREACH TEACHING

Educurious Non-profit K-12 curriculum developers: *Camera trapping as a tool to understand wildlife behavior and ecology*. April 10, 2012

Lecturer: Splash! Stanford Educational Studies Program for high school students: *Why are some species endangered? Conservation Biology 101*. Stanford University, Stanford, CA. April 2012

Mammal Identification Guide: Stanford BioBlitz, Stanford, CA.

Led citizen science mammalian rapid biodiversity assessment. April 2011 & 2012

Volunteer instructor: Redwood High School Continuation Campus R.E.A.L. (Redwood Environmental Academy of Leadership), Redwood City, CA. Taught topics ranging from evolutionary biology to wildlife tracking. 2011

Lecturer/Volunteer, Splash! Stanford Educational Studies Program for high school students: Wildlife tracking: Stanford University, Stanford, CA. 2009, 2010, 2011

Presenter, Jordan Middle School Science Night: Hands-on demonstration of remote detection of wildlife using various camera-trap technologies. Jordan middle school, Palo Alto, CA. January 2010.

Volunteer, Plant Survey: Point Reyes Rare Plant-A-Thon, Point Reyes, CA
Assisted in documenting, mapping, and inventory of rare plant populations at the Point Reyes National Seashore. 2003

Volunteer, Tracking Survey: Peninsula Open Space Trust, Pescadero, CA
Worked with a team of trackers on a week-long wildlife presence or absence project 2001

MENTORSHIP

Mentorship: Stanford University, U.C. Berkeley and U.C. Los Angeles

Mentored/mentoring two high school students, 37 Stanford, U.C. Berkeley and U.C. Los Angeles undergraduates and three local volunteer/recent university graduates in research design, field work, database management and analysis. 2006-Present

Ph.D. student Mentor: Stanford Biosciences Student Association Mentorship program provides mentoring for 1st year Ph.D. students. Stanford University, CA. October 2011-2013

ESA SEEDS Mentor: Ecological Society of America program entitled, Strategies for Ecology Education, Diversity and Sustainability, is a mentorship program that pairs ecologists with under-represented students. Portland, OR. 2012 ESA Annual Meeting

PRESENTATIONS

INVITED SEMINARS

Brain size as a predictor for extinction risk in mammals. U.C. Davis Animal Behavior Seminar Series, September 2017, Davis, CA.

Connectivity modeling. The Center for Large Landscape Conservation, March 2017, Bozeman, MT.

Connectivity modeling: modeling wildlife corridors. Innovative Approaches to Wildlife and Highway Interactions: Advanced Course in Transportation Ecology, July 28, 2016. Sagehen Creek Field Station, CA

Artificial light at night: impacts to mammals. International Dark-sky Association, November 2015. Phoenix, AZ

Wildlife movement and behavior at the roadside. La Kretz League, November 2014. La Kretz Field Station. Malibu, CA.

Wildlife movement and behavior at the roadside. Santa Monica Mountains Science Day, September 2014. Santa Monica Mountains National Park Service Headquarters. Thousand Oaks, CA

Integrating wildlife behavior and conservation in a changing world. Environmental Constraints on Cognition Seminar Series, February 2014. UC Berkeley. Berkeley, CA

Integrating wildlife behavior and conservation in a changing world. UCLA La Kretz Postdoctoral Fellow Seminar, October 2013. U.C.L.A. Los Angeles, CA

RESEARCH PRESENTATIONS

Roe J.D., T. McCleary, **E.S. Abelson**. Efficacy of camera traps to detect herpetofauna with emphasis on the Alameda Whipsnake and San Francisco Garter Snake. The Wildlife Society Annual Meeting, September 2017, Albuquerque, NM

Abelson E.S., S. Cushman. Modeling wildlife movement for conservation planning. Ecological Society of America Annual Meeting, August 2017, Portland, OR

Abelson, E.S., S. Jacobson. The importance of within-species wildlife behavior on mitigating mortalities and the barrier-effect of highways. International Conference on Ecology and Transportation, May 2017, Salt Lake City, UT

Abelson, E.S., S. Jacobson. Moving wildlife across roads with PSW Research Station. Women and Minorities in U.S.F.S. Research Workshop, October 2016, Portland, OR. (poster presentation)

Jacobson, S., C. de Rivera, **E.S. Abelson**. Impacts of roadways on wildlife: barrier impacts from vehicle-caused mortality and road avoidance on species and populations. Society for Conservation Biology: North American Congress for Conservation Biology, July 2016, Madison, WI

*Nojourni, M., **E.S. Abelson**, A.P. Clevenger, D.T. Blumstein. Vehicular traffic effects on elk and white-tailed deer at wildlife crossings in Banff National Park. UCLA Ecology and Evolutionary Biology Poster Day, May 2016, Los Angeles, CA (poster presentation. Awarded second place in poster competition)

* Nojourni, M., **E.S. Abelson**, A.P. Clevenger, D.T. Blumstein. Vehicular traffic effects on elk and white-tailed deer at wildlife crossings in Banff National Park. UCLA Science Poster Day, May 24 2016, Los Angeles, CA (poster presentation)

Abelson, E.S., S.P.D. Riley, D.T. Blumstein. Wildlife movement, road ecology and impacts of wildlife perception. Organized session: "Road ecology – moving forward." Ecological Society of America Annual Meeting, August 2015, Baltimore, MD

*Kazanjian, A., **E.S. Abelson**, E.E. Boydston, D.T. Blumstein. Canid vs. canid: Using social media to understand coyote-dog encounters. UCLA Ecology and Evolutionary Biology Poster Day, May 2014, Los Angeles, CA (poster presentation)

*Kazanjian, A., **E.S. Abelson**, E.E. Boydston, D.T. Blumstein. Canid vs. canid: Using social media to understand coyote-dog encounters. UCLA Science Poster Day, May 2014, Los Angeles, CA (poster presentation)

*Zuckerwise, A., **E.S. Abelson**, R. Dirzo. Temporal overlap among wildlife species at Jasper Ridge Biological Preserve. Symposium of Undergraduate Research and Public Service, April 25 2015, Stanford, CA

*Neco, L.C., **E.S. Abelson**, A. Brown, B. Natterson-Horowitz, D.T. Blumstein. The Evolution of Self-Medication Behavior in Mammals. XXXII Encontro Anual de Etologia e V Simpósio Latino-americano de Etologia, November 18-21, 2014. Rio Grande do Norte, Brasil.

Abelson, E.S. Relative brain size as a predictor for mammalian extinction vulnerability. Ecological Society of America Annual Meeting, August 2012, Portland, OR

Abelson, E.S. Can brain size help predict conservation status of mammalian species? Society for Conservation Biology: North American Congress for Conservation Biology, July 2012, Oakland, CA

Abelson, E.S. Endocranial capacity as a predictor for extinction risk in mammals. The CHI Conference, September 14, 2011, Stanford, CA

Abelson, E.S. Are wildlife camera-shy? Capture bias and behavioral response to TrailMaster 1550 camera traps. The Wildlife Society Annual Conference, September 20, 2009, Monterey, CA

Abelson, E.S. Camera-shy wildlife and capture bias: behavioral response to TrailMaster 1550 camera traps. Ecological Society of America Annual Meeting, August 6, 2009, Albuquerque, NM

Abelson, E.S. Behavioral Response to the TrailMaster 1550 via a Comparative Study of Two Detection Methods. Bay Area Conservation Biology Symposium, January 31, 2009, Stanford, CA.

Kandel, S., **E.S. Abelson**, H. Garcia-Molina, A Paepcke & M. Theobald. PhotoSpread: a spreadsheet for managing photos. Conference on Human Factors in Computing Systems, April 8, 2008, Florence, Italy.

Abelson, E.S. Behavioral Biases of Traditional Camera Trapping Methodologies. Jasper Ridge Biological Preserve, April 08, 2007, Portola Valley, CA.

Abelson, E.S. Tracking as a wildlife survey technique. College of Natural Resources Honors Research Symposium, May 11, 2005, Berkeley, CA.

* indicates undergraduate mentee & co-author

SCIENTIFIC OUTREACH & PROFESSIONAL SERVICE

Peer reviewer: Peer reviewer for *Biological Conservation*, *PLOS ONE*

Committee board member: Board member for the Animal Behavior Society's Conservation Committee. 2014-2017.

Board of Directors: Amigos del Centro de Educacion Ambiental de las Peninsula Yucateca. Member of the board of directors for the 501 c3 non-profit organization based in Mexico with the mission of conserving and supporting of bio-cultural diversity through education, research and community. November 2012-present.

Workshop participant: Effective Collaboration & Diversity in Scientific Teams. One day workshop on cultural/gender diversity in the sciences and collaborations within and across disciplines. February 2015.

Workshop participant: Southern California Puma Project and National Park service three day workshop to identify optimal crossing locations. January 2015.

Committee member: Committee member for the UCLA La Kretz postdoctoral fellowship. 2013- 2014.

Workshop coordinator: Graduate student coordinator for the U.C. Santa Cruz/Stanford Species Interactions Workshop. December 1, 2012.

Guest speaker: Jasper Ridge Biological Preserve summer intern and technician program. *Camera traps, tracking and animal behavior*, Stanford, CA. July 20, 2012

Panel Speaker: Portola Valley Conservation Committee, *Balancing Fire Safety with Habitat Preservation*, Portola Valley, CA. October 4, 2011

Biological Preserve Advisory Committee Member: Jasper Ridge Biological Preserve Advisory Committee, Stanford, CA. October 2009-2011

Treasurer/Founding Officer: Society for Conservation Biology, Central California Coast Chapter, Founding board member. October 2007-2010

Science Advisor: Mammals Focus Team, San Francisco Bay Area Upland Habitat Goals Project/Bay Area Open Space Council. Assisted in identifying and selecting conservation targets to represent mammalian biodiversity & critical habitat in the broader bay area. 2008-2010

Volunteer, Preparation Lab: Museum of Vertebrate Zoology, Berkeley, CA
Processed wildlife specimens; archival skeletal museum accessions. 2004-2007

Treasurer: Society for Conservation Biology, Berkeley Chapter, Berkeley, CA
Organized chapter activities and field trips, facilitated meetings, and managed fiscal matters. 2004-2005

Botanical Liaison: Native plant restoration project, Strawberry Creek, Berkeley, CA
Assisted in determining appropriate plants for specific ecological communities. 2004-2005

SELECTED PRESS

PSW Connections: *Research project to help the science of wildlife passages along existing roadways.* winter/spring/summer 2016 (<http://www.fs.fed.us/psw/>)

USFS The Chief's Desk, People Places and Things: *Science to guide California highway wildlife passages.* July 20, 2016

Press coverage of *Brain size is correlated with endangerment status in mammals* published in the Proceedings of the Royal Society, Biology 2016:

Interviews:

Discovery Channel News, Ireland National Radio RTE Radio1, BBC Inside Science, Conservation Magazine, Stanford News Service

Also reported by:

Agence France Presse, BBC.com, RiAus, The Japan Times, Science Alert, Tech Times, Nature World News, Daily Mail, Phys.org, Laboratory Equipment

Quest TV, KQED: *Cameras capture the secret lives of Jasper Ridge animals.* September 25, 2012 (<http://science.kqed.org/quest/video/your-videos-on-quest-steve-fyffe>)

ABC 7, 6pm News: *Life after dark in a bay area forest.* August 3, 2012 (<http://abclocal.go.com/kgo/video?id=8761455&pid=null>)

Nature News & Scientific American: *Mostly the big-brained survive.* July 17, 2012 (<http://www.nature.com/news/mostly-the-big-brained-survive-1.11027> & <https://www.scientificamerican.com/article.cfm?id=mostly-big-brained-survive>)

Stanford News Service: *Field research at Jasper Ridge, computers and cognition.* (<http://news.stanford.edu/news/multi/features/jasper/part5.html>)

KZSU radio interview (Peninsula Report): *Night life of local wildlife.* June 8, 2012 (<http://kzsunews.tumblr.com/post/24714505458/elizaonair-this-week-we-talk-the-night-life-of>)

Stanford News Service, Video: *Cameras capture biodiversity at Jasper Ridge preserve.* June 1, 2012 (<http://youtu.be/CzSCu2FOj0Q>)

Stanford News Service: *Caught on tape: The nightlife of animals at Stanford's Jasper Ridge preserve.* May 31, 2012 (<http://news.stanford.edu/news/2012/june/jasper-ridge-cameras-060112.html>)

Stanford Report: *Jasper Ridge, Research in the Field at Stanford's Biological Preserve; Computers and Cognition.* October 22, 2008 (also online at: <http://multi.stanford.edu/features/jasper/part5.html>)