

CURRICULUM VITAE
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University of Chicago • Committee on Evolutionary Biology
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EDUCATION

- 2010-present THE UNIVERSITY OF CHICAGO Chicago, IL
PhD student, Committee on Evolutionary Biology, expected 2016
Dissertation: *The role of evolutionary history and ecological interactions in the maintenance of a high-diversity algal assemblage.*
Advisor: Dr. Catherine A. Pfister
Committee: Dr. J. Timothy Wootton, Dr. Trevor Price, Dr. Richard Ree
- 2012 Sc.M. Evolutionary Biology
Advisor: Dr. Catherine A. Pfister
- 2004-2008 WELLESLEY COLLEGE Wellesley, MA
Biology Major; Honors B.A., 2008, GPA: 3.69/4.00
Honors Thesis: Developmental analysis of an evolutionary puzzle: cervical counts in tree sloths
- 2007 DUKE UNIVERSITY OTS SOUTH AFRICA Kruger National Park, South Africa

SKILLS

Computing & Communication: Data visualization, scientific literature survey and meta analysis, grant writing, grant reporting, scientific publication, working knowledge of R, SQLite, some Python

Project Management: Experimental design, mentoring, team management and training

Laboratory: DNA extraction, PCR, primer design, sequencing, microsatellite library development

Field: Water chemistry monitoring: total alkalinity, salinity, pH, DO, nutrients; biodiversity surveys; long-term site monitoring

RESEARCH & WORK EXPERIENCE

- 9/08-8/10 WELLESLEY COLLEGE SEQUEIRA LAB Wellesley, MA
Howard Hughes Medical Institute Post-Graduate Intern 08-09, Research Assistant 09-10
Supervisor: Dr. Andrea Sequeira
Managed an Evolutionary Biology lab studying the effects of invasive species and habitat fragmentation on the endemic Galápagos weevil genus *Galapaganus* using microsatellite loci. Developed microsatellite libraries for three species. Includes two three-week collection trips to Galápagos. March 2010: field assistant. March 2011: trip leader.

6/08-8/08	THE TRUSTEES OF RESERVATIONS Shorebird Monitor Supervisor: Chris Kennedy, Regional Manager Assessed breeding populations of the endangered piping plover and least terns and their offspring and managed habitat as part of a long-standing research and conservation project.	Cape Poge Wildlife Refuge, MA
1/06-6/08	WELLESLEY COLLEGE BUCHHOLTZ LAB Research Assistant and Thesis Supervisor: Dr. Emily Buchholtz Studied variation in cervical vertebrae of tree sloths.	Wellesley, MA
12/06-1/07 12/05-1/06 5/05-8/05 6/04-8/04	BERGEN COUNTY ZOOLOGICAL PARK Seasonal Zookeeper Supervisor: Mari Vella Cared for animals and administered treatments, built and maintained exhibits, handled and transported animals, logged daily animal behavior and health. Amounts to one year full-time experience.	Paramus, NJ

RESEARCH GRANTS, FELLOWSHIPS & TRAINEESHIPS

RESEARCH AND TRAVEL GRANTS		\$27,685
2014	University of Chicago Biological Sciences Department Travel Award	\$500
2014	University of Chicago Committee on Evolutionary Biology Travel Award	\$700
2014	University of Chicago Graduate Student Affairs Travel Award	\$500
2013-2016	NSF Doctoral Dissertation Improvement Grant	\$20,540
2012-2013	University of Chicago Committee on Evolutionary Biology Hinds Award	\$1000
2011-2012	University of Chicago Committee on Evolutionary Biology Hinds Award	\$1895
2010-2011	Wellesley College Elizabeth F. Fisher Fellowship	\$3000
FELLOWSHIPS		\$129,700
2012-2016	NSF Graduate Research Fellowship Program Recipient	\$121,500
2011	NSF Graduate Research Fellowship Program	Honorable Mention
2007-2008	Wellesley College Jerome A. Schiff Fellowship	\$4000
2007	Georgeanne Miller Mulhern Student Research Fellowship	\$4200
TRAINEESHIPS		\$45,000
2011-2012	University of Chicago/NIH Genetics and Regulation Training Grant	tuition, stipend
2008-2009	Howard Hughes Medical Institute Post-Graduate Internship	\$45,000

PEER-REVIEWED PUBLICATIONS

2015	Stepien, C.C. Impacts of geography, taxonomy and functional group on inorganic carbon use patterns in marine macrophytes. <i>Journal of Ecology</i> . 103: 1371–1383.
2014	Mok H.F., Stepien C.C. , Kaczmarek M.E. , Roque Albelo, L. and Sequeira, A. S. Genetics of a weevil introduction to Santa Cruz Island, Galápagos. <i>Journal of Heredity</i> . 105(3): 365-380.

- 2012 Sequeira A.S., **Stepien C.C.**, Sijapati M., Roque Albelo L. Comparative genetic structure, variability and demographic history in introduced and endemic populations of Galápagos weevils. *Journal of Heredity*. 103(2): 206-220.
- 2010 **Stepien C.C.**, Kaczmarek M.E., Mok H.F., Stuckert A., Chen P., Downer S., Sequeira A.S. Isolation and characterization of microsatellite loci for the introduced weevil *Galapaganus howdenae* in the Galápagos archipelago. *Molecular Ecology Resources Notes* 10(3): 576-579. Permanent Genetic Resources Note available online on *Molecular Ecology Resources* Primer Database
- 2009 Buchholtz, E.A. and **Stepien, C.C.** 2009. Anatomical transformation in mammals: developmental origin of aberrant cervical anatomy in tree sloths. *Evolution & Development*. 11(1):69-79

MANUSCRIPTS

- submitted* **Stepien, C.C.**, Pfister, C.A., and Wootton, J.T. Functional traits for carbon access in macrophytes. *Submitted to Journal of Ecology*.
- in revision* Sequeira, A.S., **Stepien, C.C.**, Tran, C.T., Stuckert, A., and Guo, W. Signatures of habitat fragmentation on genetic patterns of endemic weevil populations in northern Isabela Island, Galápagos. *In revision at Conservation Genetics*.
- in prep* McCoy, S.J., **Stepien, C.C.**, Wootton, J.T. Local movement of the intertidal chiton *Katharina tunicata* varies with grazer density among nearby populations

PRESENTATIONS

- 2015 TALK. Ecological Society of America, Baltimore, MA. **Stepien, C.C.** Impacts of geography, taxonomy and functional group on inorganic carbon use patterns in marine macrophytes.
- 2014 TALK. Ecological Society of America, Sacramento, CA. **Stepien, C.C.**, Pfister, C.A., Wootton, J.T. Seaweed feedbacks to ocean chemistry.
- 2014 TALK. Joint Aquatic Sciences Meeting, Portland, OR. **Stepien, C.C.**, **Pfister, C.A.**, Wootton, J.T. Seaweed feedbacks to ocean chemistry.
- 2013 LIGHTNING TALK. Science Game Jam, Field Museum of Natural History, Chicago, IL. **Stepien, C.C.** The intertidal zone: the ultimate tower defense game.
- 2013 TALK. University of Chicago Natural History Lecture. **Stepien, C.C.**, **Pfister, C.A.**, Wootton, J.T. Seaweed feedbacks to ocean chemistry.
- 2013 TALK. University of Chicago Graduate Assistance in Areas of Need Grant retreat. **Stepien, C.C.**, Pfister, C.A. Succession along an intertidal emersion gradient.
- 2012 TALK. University of Chicago. The roles of evolutionary history and ecological interactions in the maintenance of a high-diversity algal assemblage. **Stepien, C.C.**, Pfister, C.A.
- 2011 TALK. Charles Darwin Research Station, Galápagos Islands. Invasive potential, genetic diversity and habitat fragmentation in populations of introduced and endemic weevils in the Galápagos archipelago. **Stepien, C.C.**, Sequeira, A.S., Mok H.F., Stuckert A., Kaczmarek M.E., Sijapati M., Chen P., Downer S.
- 2011 POSTER. Society for the Study of Evolution, University of Oklahoma, Norman. Tran, C., Guo, W., **Stepien, C.C.**, Sequeira, A.S. Detection of the effects of habitat fragmentation on the genetic variability and structure of endemic weevil populations on Northern Isabela Island, Galápagos.
- 2009 POSTER. Society for the Study of Evolution, University of Idaho, Moscow. **Stepien C.C.**, Kaczmarek M.E., Mok H.F., Stuckert A., Chen P., Sequeira A.S. Microsatellite markers to evaluate invasion success and genetic diversity in introduced weevils in the Galápagos archipelago.
- 2007 POSTER. Society of Vertebrate Paleontology. Buchholtz, E.A. & **Stepien, C.C.** Aberrant cervical anatomy in tree sloths.

OUTREACH, SERVICE, TEACHING EXPERIENCE & TRAINING

COMMUNITY OUTREACH

- 2013-present Chicago-oriented Biology blog, Bio for the Win
- 2013 Video Game Development. Science Game Jam, Field Museum of Natural History, Chicago. Teamed up with game developers to produce a game about seaweeds competing for space in the rocky intertidal.
- 2012 Chicago Council on Science and Technology (C2ST) Public Event, 'Our Oceans' Health: An Ecosystem on the Brink' Poster presentation in public reception
- 2012 'Personal Journeys in STEM' Told my story of pursuing a STEM degree and led student discussion groups about working in STEM with middle and high school students

EDUCATIONAL OUTREACH

- 2013 Sigma Xi judge, Student Research Showcase 3/18/13 – 3/23/13
- 2011 Tidepool interpreter, science lecturer, COAST Creating Opportunities for Afterschool Thinking 7/20/11 Cape Flattery School District, WA (grades K-8)
- 2011 Guest science lecturer, Sisters4Science Club 1/25/2011 Perspectives School, Joslin Campus, Chicago, IL (grades 5-8)
- 2011 Guest science lecturer, CityYear afterschool program 2/3/2011 Sherman School of Excellence, Chicago, IL (grades 6-8)
- 2011 Guest science lecturer, CityYear afterschool program 5/16/2011 Dulles School of Excellence, Chicago, IL (grades 6-8)

SERVICE

- 2014-present University of Chicago Student Healthcare Advisory Board member
- 2014-present Health and Wellness Representative, University of Chicago Biological Sciences Deans Council
- 2014 Organizer and Moderator, *Your Brain on Grad School* lecture
- 2011 Session Moderator, Committee on Evolutionary Biology / Dept. of Ecology and Evolution Annual Retreat 4/10/2011
- 2011 Graduate Recruitment Student Representative, Committee on Evolutionary Biology

TEACHING EXPERIENCE

- 2013 Guest lecture Marine Ecology (Bios 23289) J.T. Wootton, Winter 2011
90 min: Life History Strategies
- 2013 Teaching Assistant, Marine Ecology (Bios 23289) J.T. Wootton. Winter 2011 Advanced undergraduate course for majors
- 2012 Course organized: Topics in Aquatic Ecology: Macroalgal Phototrophs (EceV 42700) with S. McCoy, C. Pfister. Fall 2012 Graduate directed reading group, The University of Chicago
- 2008-2010 Lab Manager & Student advisor, Wellesley College Sequeira Lab
Collaborated in lab training & mentorship of ten undergraduate women and one high school student
- 2005-2008 Wellesley College Biology Tutor

TEACHING DEVELOPMENT

- 2014 Workshop. "Students in Distress: Student Mental Health and Today's College Teaching"
University of Chicago Craft of Teaching Program Series
- 2014 "Mentoring in the Sciences" Workshop
University of Chicago Multicultural Graduate Committee
- 2012 10-week "Approaches to Teaching in the Darwinian Sciences" Pedagogy Course
University of Chicago Darwinian Sciences Cluster
- 2011 2-day Workshop. "Teaching in the College"
University of Chicago Center for Teaching and Learning

PROFESSIONAL DEVELOPMENT

- 2015 Brownfields Equitable Development Workshop
Brownfields Annual Conference, Chicago, IL

2014	ESA Alternative Careers Workshop Ecological Society of America Annual Meeting, Sacramento, CA
2014	10-week “Advanced Topics in Ethics for the Darwinian Sciences” Course University of Chicago Darwinian Sciences Cluster
2014	10-week “Introduction to Scientific Computing” Course University of Chicago Department of Ecology and Evolution
2011	10-week “Scientific Integrity and Ethical Conduct” Course University of Chicago Biological Sciences Division
2010	10-week “Grants, Publications and Professional Issues” Grant Writing Workshop University of Chicago Darwinian Sciences Cluster

PROFESSIONAL AFFILIATIONS

2008-present	Sigma Xi
2009-present	Society for the Study of Evolution
2011-present	Phycological Society of America
2012-present	Ecological Society of America
2013-present	Society for Ecological Restoration

STUDENTS ADVISED AND SUPERVISED

Undergraduate Research Supervised, the University of Chicago

2011-2012

supervised as field assistants

Peter Zaykoski	B.S. 2011 – M.E.M. 2014 Duke University, Nicholas School of the Environment
Samuel Betcher	B.S. 2012
Lyda Harris	B.S. 2013 – Wildlife Technician, Harris Environmental Group Inc.

Undergraduate Research Supervised, Wellesley College

2008-2010

Ten undergraduate women and one high school senior at Wellesley College, working in Dr. Andrea Sequeira’s lab

*contributed to mentoring in undergraduate Honors Thesis

^supervised as field assistants in addition to lab – Galapagos Islands, March 2011

WELLESLEY MENTORING IN THE SCIENCES PROGRAM

Lily Duh	B.A. 2011 – Account Executive, BPCM
Weixia Guo^	B.A. 2011 – medical student, University of Michigan Medical School, M.D.
Christina Tran^	B.A. 2011 – Community Manager, Experiment.com science crowd-sourcing fundraiser
Michelle Corkrum	B.A. 2012 – medical student, University of Minnesota, M.D./Ph.D. Medical Scientist
Julia Wucherpfennig	B.A. 2012 – Research Technician, Brigham and Women's Hospital
Wendy West	B.A. 2013 – Clinical Research Coordinator, BU School of Medicine

ADDITIONAL STUDENTS

Austin Stuckert*	B.A. 2010 – M.D. 2014, Medical College of Wisconsin, M.D.
Hoi-Fei Mok*	B.A. 2010 – Ph.D. 2014, University of Melbourne, Environmental Science
Maryska Kaczmarek	B.A. 2009 – graduate student, University of Texas-Austin, Ph.D. Ecology Evolution & Behavior
Peggy Chen	B.A. 2009 – medical student, University of Texas Southwestern Medical Center, M.D.
Christina Gagosian	Wellesley High School Class of 2011, Boston University class of 2015