

# HANNA R. KOCH, PhD

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## EDUCATION

- 2016** PhD, Evolutionary Biology, *magna cum laude*  
Max Planck Institute for Evolutionary Biology | Plön, Germany  
*Theme: Using experimental evolution to investigate the ecological and population genetic mechanisms underlying the evolution of sexual reproduction*
- 2012** MSc, Biology, *summa cum laude*  
California State University, Los Angeles | Los Angeles, CA  
*Theme: The evolutionary ecology of species' range limits and climate change implications*
- 2008** BSc, Marine Science\*, *cum laude*  
Eckerd College | St. Petersburg, FL  
\*Honors Track, Minor: Chemistry

## EMPLOYMENT

- 2020 – Present** *Postdoctoral Fellow, Coral Reef Restoration Program, Mote Marine Laboratory, Summerland Key, FL*
- 2018 – 2020** *Postdoctoral Fellow, The German Research Foundation (#394448490)*  
*Visiting Research Scientist, Mote Marine Laboratory, Summerland Key, FL*
- 2016 – 2018** *Postdoctoral Researcher, Max Planck Institute for Evolutionary Biology, Plön, Germany*
- 2012 – 2016** *PhD Researcher, Max Planck Institute for Evolutionary Biology, Plön, Germany*
- 2011 – 2012** *Graduate Teaching Fellow, National Science Foundation (STEM, GK-12), IMPACT-LA, CSULA, CA*
- 2009 – 2011** *Graduate Assistant, National Science Foundation, Coastal Range Limits Grant (#OCE-0648606), CSULA, CA*
- 2008 – 2009** *Biology Lab Instructor & Lecturer, California State University, San Bernardino, CA*
- 2005** *Teaching Assistant, Marine Invertebrate Zoology, Eckerd College, St. Petersburg, FL*

## PUBLICATIONS

- Koch** H, Wagner S\*, & Becks L. (2020) Antagonistic species interaction drives selection for sex in a predator–prey system. *Journal of Evolutionary Biology*. DOI: 10.1111/jeb.13658
- Koch**, H. (2020) Chapter 10: Genetic considerations for coral reef restoration. In: *Active Coral Reef Restoration: Techniques for a Changing Planet*. Ed., David Vaughan. J. Ross Publishing. (*accepted*)
- Koch**, H. (2020) Chapter 9: Assisted evolution and coral reef resilience. In: *Active Coral Reef Restoration: Techniques for a Changing Planet*. Ed., David Vaughan. J. Ross Publishing. (*accepted*)
- Koch** H, Blohm-Sievers E, & Liedvogel, M. (2019) Rapid sex determination of a wild passerine species using loop-mediated isothermal amplification (LAMP). *Ecology and Evolution*. DOI: 10.1002/ece3.5168
- Koch** H. (2016) Evaluating the significance of predator-prey interactions for the evolution and maintenance of sexual reproduction. PhD Thesis. MPI for Evolutionary Biology, Plön. 119pp.
- Koch** H & Becks L. (2016) The consequences of facultative sex in a prey adapting to predation. *Journal of Evolutionary Biology*. DOI: 10.1111/jeb.12987
- Koch** H, Jeschke A\*, & Becks L. (2015) Use of ddPCR in experimental evolution studies. *Methods in Ecology and Evolution*. DOI: 10.1111/2041-210X.12467
- Koch** H, Frickel J, Valiadi M, & Becks L. (2014) Why rapid, adaptive evolution matters for community dynamics. *Frontiers in Ecology and Evolution*, 2:17. DOI: 10.3389/fevo.2014.00017
- Koch** H. (2012) Local adaptation to low salinity stress in estuarine sea slugs: Range limits along the California coast. MSc Thesis. California State University, Los Angeles. 86 pp.

\*mentee

#### GRANTS, AWARDS, SCHOLARSHIPS

- 2020** Protect Our Reefs Grant, Mote Marine Laboratory (\$33,000)
- 2019** NOAA Restoration Center & More Marine Laboratory Cooperative Agreement Award, Co-PI
- 2016** F1000Prime Recommendation: The consequences of facultative sex in a prey adapting to predation. J. Evol. Biol. DOI: 10.3410/f.726823101.793525136
- 2012** 26<sup>th</sup> Annual Statewide CSU Student Research Competition, Long Beach, CA  
1<sup>st</sup> Place Talk – Biological, & Agricultural Sciences (Award: \$500)
- 2012** Special Recognition in Graduate Studies Award, CSULA, Los Angeles, CA  
<http://www.calstatela.edu/univ/ppa/publicat/bio-major-looks-sea-slugs-clues-climate-change>
- 2012** COAST (Council on Ocean Affairs, Science & Technology) Student Award for Marine Science Research (Grant: \$3,000)
- 2012** Phi Kappa Phi Honor Society Member
- 2006-08** MOAA (Military Officers Association of America) Scholarship (\$9,000), Eckerd College, St. Petersburg, FL
- 2007-08** Army Emergency Relief Scholarship (\$1,500), Eckerd College, St. Petersburg, FL
- 2007** Kellogg Grant for Service Learning in Ghana (\$2,000), Eckerd College, St. Petersburg, FL
- 2007** NSF-REU Internship, College of Marine-Earth Studies, University of Delaware, Lewes, DE
- 2006** Kellogg Grant for Service Learning in Nicaragua (\$2,000), Eckerd College, St. Petersburg, FL
- 2004-08** Eckerd College Grant (\$5,800/yr), Eckerd College, St. Petersburg, FL
- 2004-08** Eckerd College Academic Achievement Dean's Scholarship (\$16,000/yr) Eckerd College, St. Petersburg, FL
- 2004-08** Eckerd College Honors Program, Eckerd College, St. Petersburg, FL
- 2004-05** Army Emergency Relief Scholarship (\$1,500), Eckerd College, St. Petersburg, FL
- 2004-05** Alpha Phi Alpha Fraternity Scholarship (\$1,750), Eckerd College, St. Petersburg, FL
- 2004-05** ECAPTS (European Congress of American Parents, Teachers & Students) Scholarship (\$2,000), Eckerd College, FL

#### CONFERENCE PRESENTATIONS & INVITED LECTURES

- 2020** Keynote Speaker, Waterbox Aquariums "Family Reunion", Islamorada, FL
- 2019** Knowledge Exchange, Mote Marine Laboratory, Summerland Key, FL
- 2019** Coral Sexual Propagation Meeting, Mote Representative, St. Petersburg, FL
- 2017** European Society for Evolutionary Biology (ESEB) 15<sup>th</sup> Congress, Groningen, The Netherlands
- 2016** Association for the Sciences of Limnology & Oceanography (ASLO), Summer Meeting, Santa Fe, NM
- 2015** European Society for Evolutionary Biology (ESEB) 14<sup>th</sup> Congress\*, Lausanne, Switzerland  
\*Symposium Co-Organizer: "Ecology and Evolution of Sex"
- 2015** Experimental Evolution Workshop, Kiel, Germany
- 2014** Workshop on Quantitative Evolutionary Biology, Şirince, Turkey
- 2014** Minisymposium: Experimental Evolution & Community Dynamics, Helsinki, Finland
- 2014** Max Planck Institute 12<sup>th</sup> Aquavit Symposium, Plön, Germany
- 2014** 16<sup>th</sup> International Conference on the Cell & Molecular Biology of *Chlamydomonas*, Pacific Grove, CA
- 2013** European Society for Evolutionary Biology (ESEB) 13<sup>th</sup> Congress, Lisbon, Portugal
- 2012** 26<sup>th</sup> Annual Statewide CSU Student Research Competition\*, Long Beach, CA \*1<sup>st</sup> Place Winner
- 2012** National Science Foundation GK-12 Annual Conference, Washington, D.C.
- 2012** CSULA Student Symposium on Research, Scholarship and Creative Activity\*, Los Angeles, CA  
\*1<sup>st</sup> Place Winner – Biological Sciences & CSULA nomination for statewide CSU competition
- 2011** CSULA Student Symposium on Research, Scholarship and Creative Activity, Los Angeles, CA

#### RECENT PROFESSIONAL DEVELOPMENT

- 2020** Coral Restoration Consortium Land-Based Propagation Working Group, Co-Chair
- 2020** RCN-ECS (The Research Coordinated Network for Evolution in Changing Seas), Member
- 2020** Rescue Diver SCUBA certification (in progress), FL Keys
- 2019** OceanX Research Expedition Participant – Surveying SCTLTD along the Florida Reef Tract
- 2019** Stony Coral Tissue Loss Disease Technical Workshop, St. Petersburg, FL
- 2018** Reef Futures Symposium, Key Largo, FL

INVITATIONS TO REVIEW FOR PEER-REVIEWED SCIENCE JOURNALS

Scientific Reports, Nature

Currently Biology

CERTIFICATIONS

**2019** Nitrox SCUBA certification #F5A718B (NAUI) | Florida Keys

**2017** Advanced open-water SCUBA certification #1708ED2526 (PADI) | Baltic Sea, Germany

**2007** Open-water SCUBA certification #103084 (PADI) | Florida Keys

**2007** US Coast Guard Auxiliary Boating Skills and Seamanship Course | Lewes, DE