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CAREER OBJECTIVES

I aim to advance scientific understanding of ecology through academic research and teaching.

ACADEMIC APPOINTMENTS

Project Scientist, Institute of the Environment and Sustainability, University of California, Los Angeles (UCLA), USA; 2023-Present

Research topic: Non-lethal effects of climate, disease, and human disturbance on wild animal populations

Lecturer, Ecology and Evolutionary Biology Department, UCLA, USA; 2022-Present

Courses: Ecology, Marine Science

UCLA La Kretz Postdoctoral Fellow, La Kretz Center for California Conservation Science, Institute of the Environment and Sustainability, UCLA, USA; 2021-2023

Research topic: Identifying and conserving wild animal populations threatened by disease

Postdoctoral Researcher, National Great Rivers Research and Education Center (NGRREC), USA, 2016, 2020

Research topic: Trait variation and trophic interactions in larval amphibian assemblages

Postdoctoral Researcher, Institute for Integrative Biology, University of Liverpool, Liverpool, United Kingdom, 2016-2019; joint position with the Institute of Zoology, Zoological Society of London (ZSL), London, United Kingdom

Research topic: The effects of host species composition and co-infection on multi-host parasite transmission

EDUCATION

PhD in Zoology, Department of Zoology, University of Cambridge, Cambridge, United Kingdom, Oct. 2016, joint position with the Institute of Zoology, ZSL

Dissertation Title: Movement and parasitism in fragmented habitats.

Bachelor of Science in Forestry, Summa Cum Laude with honors, May 2006

Virginia Polytechnic Institute and State University (Virginia Tech), Blacksburg, VA

GRANTS AND FELLOWSHIPS

2023	Wild Animal Initiative Research Fellowship	\$253,500
	Morris Animal Foundation Fellowship Training Grant	\$135,000
2022	Wild Animal Initiative Research Grant	\$30,000
2021	La Kretz Postdoctoral Fellowship	\$120,000 + research expenses
2019	Research Coordination Network workshop scholarship	\$1200
2016	UK Natural Environment Research Council Standard Grant	£635,949
2014	Cambridge Trusts PhD Extension Grant	£12,000
	Balfour Trust Fund PhD Student Grant	£9,270
2011	St. John's College Research and Learning Fund	£500
	Cambridge International Scholarship, 2011	£32,625 + 3-year tuition
	US National Science Foundation (NSF)	
	Graduate Research Fellowship	\$75,000 + 3-year tuition (declined)
2009	Fulbright Scholarship	\$14,000
2004	William August Stuermann Scholarship	\$12,000
2005	NSF Research Experience for Undergraduates	\$5,000

Honors

Outstanding Global Health Mentor Award, School of Public Health, Washington University of St. Louis, 2020
David W. Smith Award for Outstanding Service, 2006, College of Natural Resources, Virginia Tech
Gold Key National Honors Society Inductee, 2003

PREPRINTS

1. **Daversa, DR**, J Lloyd-Smith, G Bucciarelli, HB Shaffer, DT Blumstein. The non-lethal effects of climate change and infectious disease on individuals and populations. *Authorea*. DOI: 10.22541/au.169412033.39491316/v1 (invited submission for Proceedings of the Royal Society B)
2. **Daversa DR**, E Baxter, GM Rosa, C Sergeant C, TMJ Garner TWJ. Standard methods for marking caudate amphibians do not impair animal welfare over the short term: an experimental approach. *BioRxiv*. DOI: <https://doi.org/10.1101/2023.09.28.560063> (accepted pending minor revisions at Animal Welfare)

PUBLICATIONS

2024

3. Green, ET, AI Dell, J Crawford, E Biro, **DR Daversa**. 2024. Trait variation in patchy landscapes: morphology of spotted salamanders (*Ambystoma maculatum*) varies more within ponds than between ponds. *PLOS ONE*. <https://doi.org/10.1371/journal.pone.0299101> (in press)

2022

4. **Daversa, DR**, J Bosch, AM Manica, TWJ Garner, A Fenton. 2022. Host identity matters – up to a point: the community context of *Batrachochytrium dendrobatidis* transmission. *The American Naturalist*. <https://doi.org/10.1086/720638>.

2021

5. **Daversa, DR**, R Hechinger, A Fenton, E Madin, J Rohr, A Dell, V Rudolph, K Lafferty. 2021. Broadening the ecology of fear: non-lethal effects arise from diverse responses to predation and parasitism. *Proceedings of the Royal Society: B* 288: 20202966. <http://doi.org/10.1098/rspb.2020.2966>
6. **Daversa, DR**, AM Manica, H Bintanel Cenis, P Lopez, TWJ Garner, J Bosch. 2021. Alpine newts (*Ichthyosaura alpestris*) avoid habitats previously used by parasite-exposed conspecifics. *Frontiers in Ecology and Evolution* 9: 636099. <http://doi.org/10.3389/fevo.2021.636099>
7. Farthing, H, J Jiang, AJ Henwood, A Fenton, MC Fisher, **DR Daversa**, TWJ Garner, DJS Montagnes. 2021. Microbial grazers may aid in controlling infections caused by aquatic zoospore fungi. *Frontiers in Microbiology* 11: 592286. <https://doi.org/10.1101/2020.02.03.931857>

2020

8. Cooke, J, Y Araya, K Bacon, J Bagniewska, L Batty, T Bishop, M Burns, C Moya, M Charalambous, **DR Daversa**, et al. 2020. Teaching and learning in ecology: a horizon scan of emerging challenges and solutions. *Oikos* 00:1-14. <https://doi.org/10.1111/oik.07847>
9. Greischar, M, H Alexander, F Bashey, A Bento, A Bhattacharya, M Bushman, L Childs, **DR Daversa**, ...N Mideo. 2020. Evolutionary consequences of feedbacks between within-host competition and disease control. *Evolution, Medicine, and Public Health* 10: 30–34. <https://doi.org/10.1093/emph/eaaa004>

2019

10. Canessa, S, A. Spitzen-van der Sluijs, T. Stark, P. Bishop, M. Bletz, C. Briggs, **D.R. Daversa**, M. Gray, R.A. Griffiths, R.N. Harris, X.A Harrison, J. T. Hoverman, P. Jarvis, E.L. Muths, D.H. Olsen, C.L. Richards-Zawack, J. Robert, G.M. Rosa, B.C. Scheele, B.R. Schmidt, T.W.J. Garner. 2019. Conservation decisions under pressure: Lessons from an exercise in rapid response to wildlife disease. *Conservation Science and Practice*. 2019;e141. <https://doi.org/10.1111/csp2.141>
11. Pauwels, O., P. Carlino, L. Chirio, **D.R. Daversa**, J. Lips, R. Oslisly and O. Testa. 2019. Amphibians and reptiles found in caves in Gabon, western Equatorial Africa. *Cave and Karst Science* 46 (1): 3-12.

2018

12. **Daversa, D.R.**, A. Manica, J. Bosch, T.W.J. Garner. 2018. Routine habitat switching alters the likelihood and persistence of infection with a pathogenic parasite. *Functional Ecology*. 32:1262–1270. <https://doi.org/10.1111/1365-2435.13038>
13. **Daversa, D.R.**, C. Monsalve-Carcaño, LM Carrascal, J Bosch. 2018. Seasonal migrations, body temperature fluctuations, and infection dynamics in adult amphibians. *PeerJ* 6:e4698; <https://doi.org/10.7717/peerj.4698>

2017

14. **Daversa, D.R.**, A. Fenton, T.W.J. Garner, A. Dell, A. Manica. 2017. Infections on the move: How transient phases of host movement influence disease spread. *Proceedings of the Royal Society B* 284: 20171807. <https://doi.org/10.1098/rspb.2017.1807>

2011-2012

15. **Daversa, DR**, E Muths and J Bosch. 2012. Terrestrial movement patterns of the Common Toad (*Bufo bufo*) in Central Spain reveal habitat of conservation importance. *Journal of Herpetology* 46: 658-664.
16. **Daversa, DR**, J Bosch and K Jeffrey. 2011. First survey of the disease-causing fungus, *Batrachochytrium dendrobatidis*, in amphibian populations of Gabon, Africa. *Herpetology Review* 42 (1): 67-69.

DISTINGUISHED SCIENCE ESSAYS

I strive to communicate science to more general audiences. The following essays were written for non-experts, were published, and received distinctions for their quality.

Daversa, D.R. 2013. How heels help people walk. *Access to Understanding*. Europe Pubmed Central. http://europepmc.org/docs/A2U_programme_web_2013.pdf (essay competition finalist)

Daversa, D.R. 2012. The future of science. *In NextGen voices. Science* 335 (6064): 36 – 38. (Top 10 essay)

Daversa, D.R. 2012. The definition of a successful scientist. *In NextGen voices. Science* 336 (6077): 32-34. <http://www.sciencemag.org/content/336/6077/32/suppl/DC1> (Top 50 essay)

TEACHING AND MENTORING

Instructor of Record

Intro to Marine Science Lab (EEB109L, 80 undergraduates, student rating: 8.2-8.5/10), Ecology and Evolutionary Biology Department, UCLA, 2023-2025

Ecology (EEB 122, 120 undergraduates, student rating: 8.28/10), Ecology and Evolutionary Biology Department, UCLA, 2022-2025

Tutorials

Behavioral Ecology (upper division undergraduate), University of Cambridge, 2015

Ecology (1st-2nd year undergraduate), University of Cambridge, 2015

Animal Behavior (upper division undergraduate) University of Cambridge, 2014

Population Biology (upper division undergraduate), University of Cambridge, 2014

Other Teaching Roles

Guest Lecturer,

Zoology, Pepperdine University, 2024

Disease Ecology undergraduate/graduate Seminar, UCLA, 2022

Introduction to Disease Models, University of Bristol Veterinary School, Bristol, UK, 2021

Organizer, Wildlife Health Working Group, Institute of the Environment and Sustainability, UCLA, 2023

Advisor, Senior Practicum in Environmental Science, UCLA, 2022

Programming support, R bootcamp, UCLA, 2022-2023

Instructor, Excel for Beginners training course, 2008, National Federal Emergency Management Agency, 2008

Mentoring

Supervisor, student research program (1 mentee), Department of Ecology and Evolutionary Biology, UCLA, 2023

Research topic: Growth patterns in post-metamorphic western toads (*Anaxyrus canorus*) in the Santa Monica Mountains

Supervisor, undergraduate internship program (1 mentee), US National Park Service, 2021

Research topic: Threats of disease in endangered Yosemite toads (*Anaxyrus canorus*)

Global Health PhD and postdoc mentor (4 mentees), Washington University of St. Louis School of Public Health, 2020 (recipient of the Outstanding Global Health Mentor award)

Co-supervisor, PhD student, University of Liverpool (1 mentee), 2017-2019

Research topic: within-host infection dynamics for co-infecting pathogens

Co-supervisor, Master's and undergraduate research (2 mentees), University of Liverpool, 2018-2019

Research topic: Thermal performance of infective stages of fungal parasites

Co-supervisor, Wild animal Biology Master's program (1 mentee), Institute of Zoology, Zoological Society of London, 2018

Research topic: the effects of tagging methods on amphibian behavior and welfare

Supervisor, summer undergraduate internship program (1 mentee), National Great Rivers Research and Education Center, 2016

Research topic: Morphological and behavioral variation in spotted salamanders (*Ambystoma maculatum*)

OTHER PROFESSIONAL POSITIONS

These professional experiences instilled research and leadership skills expanded my appreciation of cultural diversity, and equipped me to coordinate large projects that integrate science, conservation, and public policy.

Research Associate, University of California, Berkeley, June –2007, 2010

Topics: Field tests of probiotic treatments of diseased amphibians in Sequoia-Kings Canyon National Park

Research Associate, Station d'Etudes des Gorilles et Chimpanzés/Wilderness Conservation Society, Gabon, 2008

Topics: Primate monitoring and conservation in Lope National Park; Disease surveillance in amphibians of Gabon

GIS Specialist, United States Federal Emergency Management Agency, 2006 –2011

Topic: Using geospatial analyses to measure the economic and environmental impacts of natural disasters

Project Manager, Peacework, 2006 –2011

Topic: Service-based partnerships between US institutions and communities in Central America and Africa

SERVICE

Co-Organizer, Thematic Session at 2021 British Ecological Society Annual Meeting, Liverpool, UK

Session title: What determines host species roles in multi-host disease dynamics?

Wiley Science advisor, 2012 – 2015

Served on panels and working groups for publishing ethics, policy, and development

Science Education Assistant, SEEDS, Blacksburg, VA, 2004 - 2006

Taught grade school students field biology principles with the non-profit Seek Education Explore DiScover (SEEDS)

PEER REVIEW

Proceedings of the Royal Society B, Functional Ecology, Biological Reviews, Ecological Applications, Journal of Animal Ecology, Biology Letters, Scientific Reports, Parasitological Research, Diseases of Aquatic Organisms
Reviewed for a chapter of the 2019 book *Wildlife Disease Ecology: Linking Theory to Data and Applications*

INVITED PRESENTATIONS

Stressors and their (non-lethal) ecological consequences. Pepperdine University, Malibu, California, USA, December 2023.

Understanding organismal biology to manage threats to biodiversity. California Institute of Technology, Pasadena, California, USA, May 2023.

Disease and stress ecology through the lens of organismal biology. Williams College, Williamstown, Massachusetts, USA, March 2023.

Down with disease: Managing pathogen threats in Yosemite toad (*Anaxyrus canorus*) populations. Sierra Nevada Aquatic Research Laboratory, Mammoth Lakes, California, USA. May 2022. (virtual) YouTube link: https://www.youtube.com/watch?v=FBYnV_o3xZU

Movement ecology can improve animal health and conservation, Bristol Veterinary School, University of Bristol, United Kingdom, September 2021 (virtual)

Movement ecology provides solutions for mitigating disease spread. La Kretz Center Seminar, Institute of the Environment and Sustainability, University of California, Los Angeles, March 2020.

How movement ecology can improve predictions for disease spread. Disease Ecology Seminar, Department of Zoology, University of Oxford, October 2019.

Factoring amphibian behaviour into chytrid mitigation strategies. Amphibian and Reptile Conservation Scientific Meeting 2018, Bournemouth, United Kingdom, December 2018.

Moving forward with spatial disease models. CEID seminar, University of Georgia, August 2018.

The non-Lethal consequences of parasitism versus predation. Ecological Society of America Annual Meeting, New Orleans, LA, August 2018.

Movement and parasitism in fragmented habitats. Ecology and Evolution Seminar, Department of Biology, Pennsylvania State University, USA, March 2016.

SELECTED CONTRIBUTED PRESENTATIONS AND POSTERS

Batrachochytrium dendrobatidis risk in Yosemite toads (*Anaxyrus canorus*) varies across seasons and life stages. California/Nevada Amphibian Populations Task Force annual meeting. Sebastapol, California. 12 January 2023. (presentation)

Species contributions to transmission in multi-host communities. Jacques Monod Conference: *Open Questions in Disease Ecology and Evolution: from Basic Research to Evolutionary Medicine*. Roscoff, France. October 2017. (poster)

The role of habitat heterogeneity and host behavior in infection dynamics. Ecology and Evolution of Infectious Diseases, Santa Barbara, California, June 2017. (presentation)

Exposure frequency and habitat alter infection dynamics. British Ecological Society Joint Meeting, Lille France. Dec. 2014. (presentation)

Disease spread in amphibian metacommunities. Student Research Conference, Zoological Society of London, February 2014. (*Runner-up for best talk*)