DAVID R. DAVERSA, PHD

Institute of the Environment and Sustainability
University of California, Los Angeles
Los Angeles, CA 90095

email: ddaversa@gmail.com; ddaversa@ucla.edu
website: www.davedaversa.com
pronouns: he/his/him

CAREER OBJECTIVES

Advance scientific understanding of ecology and conservation 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: Novel epigenetic approaches for measuring wildlife health and stress

Lecturer, Ecology and Evolutionary Biology Department, UCLA, USA; 2022-Present
Courses: Ecology (upper-division lecture), Intro to Marine Science (upper-division lab)

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, PI	$253,500
	-Morris Animal Foundation Fellowship Training Grant, PI	$135,000
2022	-Wild Animal Initiative Research Grant, PI	$30,000
2021	-La Kretz Postdoctoral Fellowship, PI	$120,000 + research expenses
2019	-Research Coordination Network workshop scholarship	$1200
2016	-UK Natural Environment Research Council (NERC) Standard Grant, co-writer & named postdoc	£635,949
2014	-Cambridge Trusts PhD Extension Grant, PI	£12,000
	-Balfour Trust Fund PhD Student Grant, PI	£9,270
2011	-Cambridge International Scholarship, PI	£32,625 + 3-year tuition
	-US National Science Foundation (NSF) Graduate Research Fellowship, PI	$75,000 + 3-year tuition (declined)
	-St. John's College Research and Learning Fund	£500
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

PRE-PRINTS

20. **Daversa, DR**, R Grasso, M Posta, J Lloyd-Smith, HB Shaffer. 2025. Spread and proliferation of chytrid fungal infections in alpine toads occurs during winter dormancy. *BioRxiv.* https://doi.org/10.1101/2025.07.07.663599

19. **Daversa, DR**, A Fenton, L Brookes, G Rosa, C Sergeant, TWJ Garner. 2025. Host species composition, not priority effects, determines infection risk in multihost-multiparasite amphibian communities. *BioRxiv*. https://doi.org/10.1101/2025.06.18.660433

PUBLICATIONS

2025

18. **Daversa, DR**, J Lloyd-Smith, G Bucciarelli, HB Shaffer, DT Blumstein. 2025. Non-lethal effects of climate change and infectious disease: an energetics approach to understanding population impacts. *Functional Ecology*. https://doi.org/10.1111/1365-2435.14745

2024

17. **Daversa DR**, E Baxter, GM Rosa, C Sergeant C, TMJ Garner TWJ. 2024. Standard methods for marking caudate amphibians do not impair animal welfare over the short term: an experimental approach. *Animal Welfare*: *33*, p.e243. doi:10.1017/awf.2024.26.

16. *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*, *19*(4), p.e0299101 2022. doi: 10.1371/journal.pone.0299101.

2022

15. **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

14. **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

13. **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

12. *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 zoosporic fungi. *Frontiers in Microbiology* 11: 592286. https://doi.org/10.1101/2020.02.03.931857

2020

11. 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*

---

* First author is an undergraduate/master's student mentee

10. 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/eoaa004*

2019

9. 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. Jervis, 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

8. 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

7. **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*

6. **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

5. **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

2006-2012

4. **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.

3. **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.

2. Prisley, S, **DR Daversa**, and M. Mortimer. 2006. Estimation of forest area affected by local Ordinances: A Virginia Case Study. *Southern Journal of Applied Forestry* 30(4): 188-195.

1. **Daversa, DR**. 2006. Agroforestry systems in northern China: promoting development and environmental improvement. *China Environment Series* 8: 130-152.

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 (Lab, 80 students), Ecology and Evolutionary Biology Department, UCLA, 2023-Present

Ecology (Lecture, 120 students), Ecology and Evolutionary Biology Department, UCLA, 2022-Present

Tutorials

These teaching roles, called 'supervisions', involved weekly meetings with undergraduate students to discuss lecture material and prepare for exams.

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

Seminar Leader, Wildlife Health Seminar, Institute of the Environment and Sustainability, UCLA, 2023

Programming support, R bootcamp, UCLA, 2022-2023

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

Mentoring

Supervisor, student research program (5 mentees), Department of Ecology and Evolutionary Biology, UCLA, 2023-Present
Research topics: Early life growth patterns in western toads (*Anaxyrus canorus*); Fence lizard (*Sceloporus occidentalis*) ecology on the UCLA campus; Active learning tools for Marine Science

Co-advisor, Senior Practicum in Environmental Science (8-student senior captstone), UCLA, 2021-2022
Research topic: review of the listing status of endangered Arroyo toads (*Anaxyrus californicus*)

Supervisor, Undergraduate Internship Program (1 mentee), Yosemite National Park, 2021
Research topic: Thermal ecology and disease risk 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, 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 have instilled research and leadership skills, expanded my appreciation of cultural diversity, and allow me to coordinate large projects that integrate science, conservation, and 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 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 Coordinator, Peacework, 2006 – Present
Topic: Service-based partnerships between US institutions and communities in Central America and Africa

SERVICE

Co-Chair, Gordon Research Seminar on Predator-Prey Interactions, Lucca, Italy, 2026

Co-Organizer, Symposium at 2024 World Congress of Herpetology, Sarawak, Borneo
Symposium title: Improving animal welfare in herpetological research

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 strategy

PEER REVIEW

Grants: National Science Foundation, Wild Animal Initiative

Journals: Proceedings of the Royal Society B, Functional Ecology, Biological Reviews, Ecological Applications, Ecology, Journal of Animal Ecology, Biology Letters, Scientific Reports, Parasitological Research

Book Chapters: *Wildlife Disease Ecology: Linking Theory to Data and Applications* (2019)

INVITED PRESENTATIONS

Intersections between wild animal ecology and wild animal welfare. Ecological Society of America Annual Meeting, Baltimore, Maryland, August 2025

Epigenetics and the role of fear in shaping wild animal welfare.
-World Congress of Herpetology, Kuching, Borneo, August 2024
-Animal Behavior Society meeting, Western University, London, Ontario, June 2024

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. 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 behavior 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. Amphibian Populations Task Force 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.* Roscoff, France. October 2017. (poster)

The role of habitat heterogeneity and host behavior in infection dynamics. Ecology and Evolution of Infectious Diseases meeting, 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 presentation*)