

Lauren V. Ash

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EDUCATION

2015 – present PhD candidate, University of Vermont, Advisor Dr. Nicholas Gotelli
Biology department, Emerging infectious diseases in New England amphibian communities

2014 Master of Research, University College London, Advisor Dr. Kate Jones
Centre for Biodiversity and Environment Research, Biodiversity, Evolution & Conservation degree

2012 Bachelor of Science, University of Florida
Wildlife Ecology and Conservation with an emphasis on Wildlife Ecology

RESEARCH INTERESTS

I am broadly interested in the interactions of pathogens, their hosts, and the environment. I use an integrated approach and combine field, molecular, and computational techniques to address topics in the field of disease ecology, such as species distributions and interactions, pathogen transmission dynamics, underlying genetic mechanisms, and how biotic and abiotic stressors influence these relationships. I work to apply the results of my research to conservation and management efforts.

PEER-REVIEWED PUBLICATIONS

- (4) Oda F. H., S. Ferreira dos Anjos, J. E. Paula Lima, **L. V. Ash**, K. M. Campião, and D. J. Rodrigues. 2021. Three is a crowd: Conspecific multi-male spawning in the Spotted Toad *Rhaebo guttatus* (Schneider, 1799). *Austral Ecology* doi:10.1111/aec.13014
- (3) **Ash L. V.**, R. E. Marschang, J. M. Rijks, and A. Duffus. 2020. The Fourth International Symposium on Ranaviruses: Summary of North American Herpetological Content and Points of Interest: 4th International Ranavirus Symposium. *The Journal of North American Herpetology* <https://doi.org/10.17161/jnah.vi.13539>
- (2) Rijks J. M., B. Saucedo, J. L. Brunner, P. Hick, D. Lesbarrères, A. Duffus, **L. V. Ash**, and R. E. Marschang. 2018. Report on the 4th International Symposium on Ranaviruses 2017. *Journal of Herpetological Medicine and Surgery* 28:13-18
- (1) Brodie J., **L. V. Ash**, I. Tittley, and C. Yesson. 2018. A comparison of multispectral aerial and satellite imagery for mapping intertidal seaweed communities. *Aquatic Conservation* <https://doi.org/10.1002/aqc.2905>

PUBLICATIONS IN PREPARATION

- (2) **Ash L. V.** and N.J. Gotelli. Increased amphibian diversity leads to an amplification effect in *Ranavirus* across Vermont pond communities.
- (1) **Ash L. V.**, E.J. Farnsworth, and N. J. Gotelli. Predicting the current distribution of the rare endemic New England wildflower *Liatrix novae-angliae* using historical data

RESEARCH EXPERIENCE

Present The Distribution, Prevalence, and Transmission of Ranaviruses and their effect on amphibian communities

University of Vermont, Advisor Dr. Nicholas Gotelli

Generating predictive models to understand host-pathogen-abiotic interactions; investigating the relationship between *Ranavirus* prevalence and host biodiversity; using experimental and molecular techniques to determine how host genetic diversity influences Wood Frog tolerance and resistance to the virus

2014 Developing a tool for the monitoring of seaweed habitat change

Natural History Museum, London, Advisors Prof. Juliet Brodie and Dr. Chris Yesson

Created models using high-resolution imagery and field survey data with QGIS and R to determine whether seaweed habitats can be accurately differentiated through remote sensing technology

2014 Anthrax risk map of Africa: incorporating ecological theory into disease modeling

University College London, Advisors Dr. Kate Jones and Dr. David Redding

Created MAXENT, Boosted Regression Tree, and Generalized Linear Models using predictors that incorporated ecological factors, as well the standard bioclimatic variables

2012 UF in Swaziland

University of Florida, Advisor Dr. Robert McCleery

Used an aardvark burrow camera to determine whether the burrows provided important habitat for other species

2012 Avian ecology in Goethe State Forest

Florida Forest Service, Supervisor Charlie Pedersen

Banded fledgling Red-bellied Woodpeckers, identified Red-cockaded roosting clusters, installed artificial nest boxes, censused Nightjar population

2011 UF in Belize

University of Florida, Advisor Dr. William Giuliano

Studied the differences in biodiversity between natural pine communities and pine plantations and marine and coastal reef habitats

GRANTS AND AWARDS

2019 Graduate Teaching Assistant of the Year (Biology department and UVM Graduate College)
2019 University of Vermont Ronald Suiter Prize \$1000
2019 The University of Vermont John Wheeler Award \$2000
2018 Best Graduate Student Poster Award, NEPARC conference \$100
2018 University of Vermont Dr. Roberto Fabri Fialho Research Award \$1850
2018 University of Vermont's Art of Biology (photography contest) 1st place
2017 UVM Biology Graduate Research Development Award \$500
2017 Global Ranavirus Consortium Travel Grant \$1500
2017 The University of Vermont Graduate College Summer Fellowship \$2000
2016 The University of Vermont John Wheeler Award \$2000
2013 University College London scholarship £2000
2007 – 2011 Florida Academic Scholars Award full tuition scholarship ~\$50,000

TEACHING

Graduate Teaching Assistant

Computational Biology (graduate and advanced undergraduate students)

2018 Fall semester
2017, 2018, 2020, 2021 Spring semesters

Ecology and Evolution (undergraduate Biology majors)

2015 - 2020 Fall semesters

Exploring Biology (freshman undergraduate Biology majors)

2016 and 2019 Spring semesters

Co-coordinator of BCOR 102: Ecology and Evolution laboratory

2018 Fall semester

Guest lecturer

2020 & 2021 Field Herpetology: Ranaviruses, sampling methods, and disease terminology

2018 Computational Biology: Data manipulation with the R package dplyr

MENTORSHIP

University of Vermont

2020 – present Maddy Degelsmith, Undergraduate Research credit, Lake Champlain Research Consortium Grant recipient (\$1020)

2020 – present Ryan Doyle, Laboratory research assistant

2018 – present	Raymond Looney, Undergraduate Research credit, Accelerated Master's student, Simon Fellowship recipient (\$5000)
2017 – 2020	Adam Slamin, Undergraduate Research credit, APLE award recipient (\$500)
2017 – 2020	Abbi Smith, Undergraduate Research credit, Summer Undergraduate Research Fellowship recipient (\$5000)
2017 – 2020	Sarah Clarke, Undergraduate Research credit
2020	Sophia Markus, Undergraduate Research credit
2019 – 2020	Danielle Urban, Undergraduate Research credit
2018 – 2020	Hannah Lewis, Undergraduate Research credit
2018 – 2020	TJ Mandelkorn, Undergraduate Research credit
2018	Zooey November, Fieldwork assistant, Rubenstein Summer Internship recipient
2017 – 2018	Piotr Sowulewski, Laboratory research work study, Barbara Kay Research Fund recipient (\$500)
2017 – 2018	Conor Kiely, Undergraduate Research credit
2017	Portia Smith, Fieldwork assistant and Undergraduate Research credit
2016 – 2017	Sarah Cuprewich, Fieldwork assistant and Undergraduate Research credit
2016 - 2017	Sophia Semen, Fieldwork and laboratory research assistant
2016	Aswini Cherukuri, Fieldwork research assistant

PROFESSIONAL DEVELOPMENT

2019	Parasitology of amphibians and reptiles Universidade Federal de Mato Grosso, Sinop, MT, Brazil
2017	Conservation Medicine and Amphibian and Reptile Disease American Museum of Natural History Course, Southwestern Research Station
2015	Software Carpentry assistant

PRESENTATIONS

2020	Vermont Wildlife Disease Meeting, remote (oral presentation)
2019	9 th Congress of Brazilian Herpetology, Campinas, São Paulo, Brazil (oral presentation)
2019	5 th International Ranavirus Symposium, Townsville, Australia (oral presentation)
2019	University of Vermont student research conference (poster presentation)
2019	University of Vermont graduate seminar (oral presentation)
2018	Annual Vermont State Park Interpreter Meeting, Castleton, VT (invited talk)
2018	Northeast Partners in Amphibian and Reptile Conservation conference, Springfield, MA (poster)
2018	Vermont Wildlife Disease Meeting, Colchester, VT (oral presentation)
2018	Northeast Natural History Conference, MA (talk and disease ecology session moderator)
2018	University of Vermont graduate seminar (oral presentation)
2017	Northeast Partners in Amphibian and Reptile Conservation conference, VA (poster)
2017	4 th International Ranavirus Symposium, Budapest, Hungary (poster)

- 2017 University of Vermont graduate seminar (oral presentation)
- 2016 University of Vermont graduate seminar (oral presentation)
- 2015 University of Vermont graduate seminar (oral presentation)

COMMUNITY OUTREACH AND EDUCATION

- 2018 Branbury State Park, Brandon, VT
Amphibian conservation education presentation and interactive sampling and swabbing activity
- 2018 L.L. Bean, Burlington, VT
Research summary and Vermont amphibians presentation; amphibian metamorphosis display
- 2018 Annual Vermont State Park Interpreter Meeting, Castleton, VT
State Park interpreter training; presented on local amphibian diseases, recognizing clinical signs of pathogens, and resources to contact and report deaths

SOCIETY MEMBERSHIPS

- Ecological Society of America (ESA)
- Global Ranavirus Consortium (GRC)
- Northeast Partners in Amphibian and Reptile Conservation (NEPARC)
- American Society of Ichthyologists and Herpetologists (ASIH)