

Curriculum Vitae
Amber Jasmine Brace, Ph.D.

POSITIONS HELD

Professor of Instruction , University of Tampa	August 2020- Current
Visiting Instructor , University of South Florida	August 2018-May 2020
NIH Institutional Biosafety Committee Member , IBC Services	2016- Current
Adjunct Professor , University of South Florida	Fall 2016, Spring-Summer 2018
Freelance Editor , CACTUS global	2017-2018
Graduate Teaching Assistant , University of South Florida	2014-2016; 2012-2013
Graduate Research Assistant , University of South Florida	2013-2014
Graduate Research Fellow , University of South Florida	2011-2012
Certified Veterinary Technician , Partridge Animal Hospital	2006-2012

EDUCATION

UNIVERSITY OF SOUTH FLORIDA, Tampa, FL	2011-2016
Ph.D., Department of Integrative Biology, Concentration in Ecology and Evolution	
Dissertation title: "Drivers of immune cost and implications for host protection from parasites"	
Advisor: Lynn B. Martin	
Advanced coursework: Biometry, Global Change Biology, Spatial and Temporal Scaling in Ecology	
UNIVERSITY OF SOUTH FLORIDA, Tampa, FL	2007-2010
Bachelor of Science, Biology; Public Health minor	
Advanced coursework: Evolutionary Medicine, Organic Evolution, Ecology of Infectious Diseases, Ecoimmunology	
SAINT PETERSBURG COLLEGE, Saint Petersburg, FL	2004-2007
Associate in Science, Veterinary Technology	
Veterinary Technician National Examination successfully completed June 2007	

ADDITIONAL COURSEWORK

Fundamentals of GIS by University of California, Davis on Coursera. Certificate earned August 2017

PUBLICATIONS

Martin, L. B., **Brace, A. J.**, Urban, A., Coon, C. A., & Liebl, A. L. (2012). Does immune suppression during stress occur to promote physical performance? *Journal of Experimental Biology*, 215(23), 4097-4103.

Coon, C. A.*, **Brace, A. J.***, McWilliams, S. R., McCue, M. D., & Martin, L. B. (2014). Introduced and native congeners use different resource allocation strategies to maintain performance during infection. *Physiological and Biochemical Zoology*, 87(4), 559-567.

Brace, A. J., Sheikali, S., & Martin, L. B. (2015). Highway to the danger zone: exposure-dependent costs of immunity in a vertebrate ectotherm. *Functional Ecology*, 29(7), 924-930.

Martin, L. B., **Brace, A. J.**, Kilvitis, H. J., & Gervasi, S. S. (2016). 4 Invader Endocrinology: The Regulation of Behaviour in Pesky Phenotypes. *Biological Invasions and Animal Behaviour*, 47.

Cohen, J. M., Civitello, D. J., **Brace, A. J.**, Feichtinger, E. M., Ortega, C. N., Richardson, J. C., ... & Rohr, J. R. (2016). Spatial scale modulates the strength of ecological processes driving disease distributions. *Proceedings of the National Academy of Sciences*, 113(24), E3359-E3364.

Martin, L. B., Kilvitis, H. J., **Brace, A. J.**, Cooper, L., Haussmann, M. F., Mutati, A., ... & Ardia, D. R. (2017). Costs of immunity and their role in the range expansion of the house sparrow in Kenya. *Journal of Experimental Biology*, 220(12), 2228-2235.

Brace, A. J., Lajeunesse, M. J., Ardia, D. R., Hawley, D. M., Adelman, J. S., Buchanan, K. L., ... & Martin, L. B. Costs of immune responses are related to host body size and lifespan. *Journal of Experimental Zoology Part A: Ecological and Integrative Physiology*.

COURSES TAUGHT

Role	Course	Semester	Number of students
Instructor	SMT 6315 STEM Methods for Middle and Secondary Grades	Spring 2020	3
Instructor	PCB 3043 Principles of Ecology * [§]	Fall 2019	190
Instructor	BSC 4933 Disease Biology *	Summer 2019	31
Instructor	BSC 2011 Biological Diversity	Spring 2020	620 in 2 sections [‡]
		Fall 2019	405
		Spring 2019	558 in 2 sections
		Fall 2018	415
Instructor	BSC 1005 Biological Principles for Non-majors Online *	Summer 2020	100
		Spring 2020	193
		Fall 2019	160
		Summer 2019	100
		Spring 2019	199
Instructor	BSC 4933 Vertebrate Natural History * [§]	Fall 2020	46
		Fall 2019	31
		Spring 2019	24
		Fall 2016	33
Instructor	BSC 1005 Biological Principles for Non-majors	Fall 2018	220 in 2 sections
Instructor	PCB 4723 Animal Physiology *	Summer 2018	17
Instructor	BSC 4933 Vertebrate Biodiversity *	Spring 2018	24
Instructor	EVR 4114 Global Climate Change *	Fall 2016	19

* Courses that include curriculum development

[§] Courses that include management/development of laboratory sections with teaching assistants

[‡] One section taught as a flipped class with Learning Assistants

RESEARCH EXPERIENCE

UNIVERSITY OF SOUTH FLORIDA, Tampa, FL

2011-2016

Graduate Student, Department of Integrative Biology

Advisor: Lynn B. Martin

My dissertation research focused on defining the relationship between physiological costs of immune activation and immune protection and determining likely drivers of costs of immunity at large and fine scales. My lab and field research primarily focused on invasive vertebrates, including house sparrows (*Passer domesticus*) in Kenya and Florida and brown anole lizards (*Anolis sagrei*) in Florida. Throughout my research, I have had opportunities to work independently and with graduate students, postdoctoral researchers, and faculty members from research institutions in the US, the EU, and Australia. In addition to laboratory and field work, I have also managed and collaborated on large data projects that involved the creation, maintenance, and analysis of extensive datasets. I led a meta-analysis examining broad drivers of costs of immunity across vertebrate and invertebrate taxa and participated in a project examining how environment, human-assisted dispersal, and host richness control the distribution of three emerging diseases in the United States (chytrid fungus, Lyme disease and West Nile Virus).

SCHOLARSHIPS, GRANTS AND AWARDS

Sigma Xi Grant in Aid of Research (2015)
 USF Tharp Summer Fellowship (2015)
 USF Student Government Conference Travel Grant (2015)
 USF Student Government Conference Travel Grant (2014)
 RocketHub Crowd Funding Campaign (2013)
 USF Department of Integrative Biology Travel Grant (2013)
 Sigma Xi Grant in Aid of Research (2012)
 NSF Research Collaborative Network in Ecoimmunology Research Exchange Grant (2012)
 USF Department of Integrative Biology Travel Grant (2012)
 University Graduate Fellowship, University of South Florida (2011-2012)

CONFERENCE PRESENTATIONS

AJ Brace. "Transmission and the Evolution of Virulence" Association for Professionals in Infection Control, Tampa, FL. 2020. *Invited talk*.

AJ Brace, MD McCue and LB Martin. "The relationship between immune costs and parasite protection: is more really better?" Society for Integrative and Comparative Biology, West Palm Beach, FL. 2015. *Talk*.

AJ Brace, MJ Lajeunesse, LB Martin, *et al.* "Cross-taxa costs of immune activation." NSF Research Collaborative Network in Ecoimmunology, Woods Hole, MA. 2014. *Poster*.

AJ Brace, S Sheikali and LB Martin. "Temperature and dose dependence of the cost of immune function." Society for Integrative and Comparative Biology, Austin, TX. 2014. *Poster*

AJ Brace, CAC Coon, MD McCue, SR McWilliams, LB Martin. "Critical amino acid allocation as a mediator of range expansion in an invasive species?" Society for Integrative and Comparative Biology, San Francisco, CA. 2013. *Poster*.

AJ Brace, M Boruta, AL Liebl and LB Martin. "The effects of captivity on immune function and physical performance in house sparrows". Society for Integrative and Comparative Biology, Charleston, SC. 2012. *Poster*.

GENERAL PUBLIC PRESENTATIONS

AJ Brace. "Using malaria to study variation in immunity". University of Tampa, Tampa, FL. 2016. *Invited talk*.

AJ Brace. "Broader impacts of immunity in wild animals: disease transmission in natural communities". University of Tampa, Tampa, FL. 2014. *Invited talk*.

AJ Brace, S Sheikali. "The cost of immunity: studying ecological immunology using an invasive lizard". University of South Florida Herpetology Day, Tampa, FL. 2013. *Invited participant*.

AJ Brace. "The cost of immunity". University of South Florida Biology Club, Tampa, FL. 2013. *Invited talk*.

LEADERSHIP AND ORGANIZATIONS

2014-2015: President Biology Graduate Student Organization of University of South Florida

2011-2016: Member Graduate Assistants United

2012-current: Member Society for Integrative and Comparative Biology

MENTORING ACTIVITIES

2019 – Current: Faculty advisor for Phi Sigma Theta USF chapter

2019 – Current: Faculty advisor for Wildlife Club student organization

2018 – Current: Faculty advisor for Better Health student organization

2018 – Current: Faculty mentor for graduate teaching assistants

2011 – 2016: Graduate student mentor for undergraduate students

PROFESSIONAL CERTIFICATIONS AND TRAINING

Institutional Biosafety Committee (IBC) certified for Biosafety Level 2 pathogens

Certified Online Instructor

Creativity in the Classroom workshop training

Anatomy of a Lecture workshop training

Interactive Teaching Techniques workshop training

Certified Veterinary Technician

RELATED EXPERIENCE

Laboratory assays:

- Oxidative burst assay
- Use of stable isotopes
- Limulus amoebocyte lysate (LAL) endotoxin detection assay
- Bacterial killing assay with *E. coli* and *Salmonella enterica*
- CORT and modified ELISA assay
- DNA extraction
- PCR
- Blood smear
- Blood and fecal parasite identification and quantification
- Basic pathology

Other related skills:

- Training of undergraduate and graduate students in lab safety protocols
- Maintenance of lab equipment and inventory
- Maintenance of lab safety protocols to remain compliant with local, state, and federal regulations
- Animal capture, care, and handling, animal care (IACUC) protocol development

Online learning platforms:

- Canvas
- Pearson's MyLab and Mastering
- i>Clicker
- Top Hat
- Proctorio

Computer programs:

- MS Office Suite
- G Suite
- Statistica
- SPSS
- Endnote

INTERNATIONAL TRAVEL EXPERIENCE: Mexico, Kenya, Scotland, Germany, New Zealand, Japan, Australia