

Andrea Lyn Liebl
AndreaLLiebl.com

Academic Positions:

August 2016-present, University of South Dakota, Vermillion, SD, USA
Assistant Professor

2013-2016, University of Exeter, Cornwall Campus, Penryn, UK
Postdoctoral Research Fellow

Education:

2008-2013, University of South Florida, Tampa, FL

PhD Biology, August, 2013

Dissertation: *Physiological and Behavioral Mechanisms of Range Expansion in the House Sparrow (Passer domesticus)*

2005-2007, University of New Orleans, New Orleans, LA

M.S. Biology, August, 2007

Thesis: *Geographic and temporal variation in toxicity of post-Katrina sediments from New Orleans, LA and The characterization and pathogenesis of a strain of bacteria found in New Orleans, LA similar to Hahella chejuensis*

2001-2005, Southampton College-Long Island University, Southampton, NY

B.S. Psychobiology and B.A. Biology, May 2005

Thesis: *The Effects of Over-Grooming in Three Captive Japanese Macaques*

Teaching:

2017- Molecular Biology, University of South Dakota

2016- Evolution: Moving beyond the "Modern Synthesis", University of South Dakota

2015- Field Course Instructor, University of Exeter

Teach: Kenya Biodiversity and Conservation for MSc students, Scotland Biodiversity for 2nd year students

2008-2007- Biology Instructor, University of New Orleans

Teach: Biology I laboratory for non-majors, Microbiology laboratory, Anatomy and Physiology; Design laboratory manual; Biology Student advising

2007-2006- Teaching Assistant, University of New Orleans

Teach: Biology I and II laboratory for non-majors, Biology I laboratory for majors

2004- Lab assistant, Southampton College

Assist: Cell and Molecular Biology

Publications:

A.K. Ragsdale, B.M. Frederick, D.W. Dukes, [A.L. Liebl](#), K.G. Ashton, E.D. McCoy, H.R. Mushinsky, and A.W. Schrey. Fire increases genetic diversity of populations of Six-lined Racerunner, *Journal of Heredity*, in press.

[A.L. Liebl](#), L.E. Browning, and A.F. Russell. Carers respond more to equivalent manipulations of brood size than workforce in cooperatively breeding chestnut-crowned babbler, *Behavioral Ecology*, 27(4): 1247-1254.

A.L. Liebl, F.Y. Nomano, L.E. Browning, and A.F. Russell. Experimental evidence for fully additive care among male carers in chestnut-crowned babblers, *Animal Behaviour*, 115: 47-53.

A.L. Liebl, A.W. Schrey, S.C. Andrews, E.L. Sheldon, and S.C. Griffith. Invasion genetics: lessons from a ubiquitous bird, the house sparrow (*Passer domesticus*), *Current Zoology*, 61: 465-476.

L.B. Martin, A. L. Liebl, and H. Kilvitis, 2015. Stress-immune interactions in a range expanding bird, *General and Comparative Endocrinology*, 211: 14-19.

L.B. Martin and A.L. Liebl, 2014. Individual physiological plasticity in an avian range expansion, *General and Comparative Endocrinology*, 206: 227-234.

A.L. Liebl and L.B. Martin, 2014. Living on the edge: range edge birds consume novel foods sooner than established ones, *Behavioral Ecology*, 25: 1089-1096.

J.W. Rivers, A.L. Liebl, L.B. Martin, and M.G. Betts, 2014. Corticosterone in territorial male Swainson's thrushes varies relative to forest age but not vegetative cover, *Journal of Ornithology*, 155(2): 539-548.

L.B. Martin, C.A.C. Coon, A.L. Liebl, and A.W. Schrey. 2014. Surveillance for microbes and range expansion in house sparrows, *Proceedings of the Royal Society*, 281 (1774).

A.W. Schrey, A.L. Liebl, C.R. Richards, and L.B. Martin. 2014. Range expansion of the introduced house sparrow (*Passer domesticus*) in Kenya: evidence of genetic admixture and human-mediated dispersal, *Journal of Heredity*, 105(1) 60-69.

A.L. Liebl and L.B. Martin. 2013. Stress hormone receptors change as range expansion progresses in house sparrows, *Biology Letters*, 9(3).

A.L. Liebl, A.W. Schrey, C.R. Richards, and L.B. Martin. 2013. Patterns of DNA methylation throughout a range expansion of an introduced songbird, *Integrative and Comparative Biology*, 53(2) 307-318.

A.W. Schrey, M. Alvarez, C.M. Foust, H.J. Kilvitis, J.D. Lee, A.L. Liebl, L.B. Martin, C.L. Richards, and M. Robertson, 2013. Ecological epigenetics: beyond MS-AFLP, *Integrative and Comparative Biology*, 53(2) 307-318.

A.L. Liebl, T. Shimizu, and L.B. Martin. 2013. Covariation among glucocorticoid regulatory elements varies seasonally in house sparrows, *General and Comparative Endocrinology*, 183(1) 32-37.

A.L. Liebl and L.B. Martin. 2012. Exploratory behaviour and stressor hyper-responsiveness facilitate range expansion of an introduced songbird, *Proceedings of the Royal Society*, 279(1746) 4375-4381.

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

J.W. Rivers, A.L. Liebl, J.C. Owen, L.B. Martin, and M.G. Betts, 2012. Baseline corticosterone is positively related to juvenile survival in a migrant passerine bird, *Functional Ecology*, 26(5) 1127-1134.

L.B. Martin, A.L. Liebl, J.H. Trotter, K. McCoy, C. Richards, and M. McCoy. Integrator networks: illuminating the black box linking genotype and phenotype, *Integrative and Comparative Biology*, 51(4):514-527.

L.B. Martin, L. Kidd, A.L. Liebl, and C.A.C. Coon. Captivity induces hyper-inflammation in the house sparrow (*Passer domesticus*), *The Journal of Experimental Biology*, 214(15): 2579-2585.

J.W. Rivers, L.B. Martin, A.L. Liebl, and M.B. Betts. 2011. Parental alarm calls of the white-crowned sparrow fail to stimulate corticosterone production of their nest-bound offspring, *Ethology*, 117(5): 374-384.

J.H. Trotter, A.L. Liebl, E.J. Weeber, and L.B. Martin. 2011. Linking ecological immunology and evolutionary medicine: the case for apolipoprotein E, *Functional Ecology*, 25(1): 40-47.

R.M. Cox, E.U. Parker, D.M. Cheney, A.L. Liebl, L.B. Martin, and R. Calsbeek. 2010. Experimental evidence for physiological costs underlying the trade-off between reproduction and survival, *Functional Ecology*, 24: 1262-1269.

L.B. Martin, J.L. Alam, T. Imboma, and A.L. Liebl, 2010. Variation in inflammation as a correlate of range expansion in Kenyan house sparrows, *Oecologia*, 164(2): 339-347.

A.L. Liebl and L.B. Martin, 2009. Simple quantification of blood and plasma antimicrobial capacity using spectrophotometry. *Functional Ecology*, 23 (6): 1091-1096.

A.L. Liebl, L.G. Granados, Q. Zhang, G. Wang, H.W. Mielke, C.R. Gonzalez, D.G. Ennis, and B.B. Rees. 2008. Effects of post-hurricane Katrina New Orleans (LA, USA) sediments on early development of the Japanese medaka (*Oryzias latipes*). *Environmental Toxicology and Chemistry*, 27:2557-2564.

K. Chen, N.S. Rannulu, Y. Cai, P. Lane, A.L. Liebl, B.B. Rees, C. Corre, G.L. Challis, R.B. Cole. 2008. Unusual odd-electron fragments from even-electron protonated prodiginine precursors using positive-ion electrospray tandem mass spectrometry. *Journal of the American Society for Mass Spectrometry*, 19 (12): 1856-1866.

Grants:

Doctoral Dissertation Improvement Grant, National Science Foundation, 2012

Challenge Grant, University of South Florida, 2012

Grant in Aid of Research, Sigma Xi, 2011

Grant in Aid of Research, Society for Integrative and Comparative Biology, 2011

Research Grant, American Ornithological Union, 2010

Honors and Awards:

Distinguished Graduate Achievement Award, University of South Florida, 2010

University of South Florida Library Graduate Student Scholarship, University of South Florida, Fall 2009

Student of the Year Award, Southampton College, Spring 2005

John Bridges Scholarship, Southampton College, Fall 2004-Spring 2005

Lunty Scholarship, Southampton College, Fall 2004-Spring 2005

Dean's List, Southampton College, Fall 2001-Spring 2005

Provost Scholarship, Southampton College, Fall 2001-Spring 2005

Presentations:

Organized Symposia

Ecological Epigenetics, Society of Integrative and Comparative Biology, organized with C. Ledon-Rettig, A. Schrey, C. Richards, and A. Moczek

Invited Seminars

A.L. Liebl (2015) Shaping phenotypes to environmental variation, Invited seminar, University of Plymouth, Plymouth, United Kingdom

A.L. Liebl (2014) Variation throughout a range expansion: phenotypes and mechanisms, Invited seminar, Deakin University, Geelong, Victoria, Australia

A.L. Liebl (2014) Physiological and behavioral mechanisms of range expansion in an introduced vertebrate. Invited seminar, Max Planck Institute of Ornithology, Seewiesen, Germany.

A.L. Liebl (2014) Adjusting a phenotype: using environmental variation to shape phenotypes. Invited seminar, Department of Natural Resources and Environmental Management, Iowa State University, Ames, IA

A.L. Liebl, A.W. Schrey, C.R. Richards, and L.B. Martin (2013) Epigenetic variation: a mechanism to overcome reduced diversity in novel environments? Society for Integrative and Comparative Biology, Ecological Epigenetics Symposium, San Francisco, CA

A.L. Liebl and C.A. Coon (2011) Drivers of Range Expansion in Kenyan House Sparrows, Department of Integrative Biology, University of South Florida, Tampa, FL

A.L. Liebl (2011) Phenotypic Plasticity Driving Range Expansion in Kenyan House Sparrows (*Passer domesticus*). Invited Seminar, Keio Joint Seminar, Tampa, FL

A.L. Liebl, L.B. Martin (2010) Physiological Correlates of Neophobic Behavior and Behavioral Syndromes. Department of Integrative Biology, University of South Florida, Tampa, FL

Professional presentations

A.L. Liebl and L.B. Martin (2014) Behavioral plasticity in response to novelty is dependent on stage of range expansion, Society for Integrative Biology, Austin, TX (oral presentation)

A.L. Liebl, J. Trotter, S.L. Kellogg, T. Fiorelli, and L.B. Martin (2013) Variation in hippocampal-dependent behaviors and neurogenesis during a range expansion, Society of Integrative Biology, San Francisco, CA (oral presentation).

A.L. Liebl, A.R. Garringer, A. Sierra, D.D. Wiley, and L.B. Martin (2012) Variation in the glucocorticoid response and behavior during a range expansion of house sparrows (*Passer domesticus*), Society of Integrative Biology, Charleston, SC (oral presentation).

A.L. Liebl and L.B. Martin (2012) Seasonal variation of glucocorticoid regulation in house sparrows (*Passer domesticus*), Charleston, SC (poster).

A.L. Liebl, L.B. Martin (2010) Physiological and Behavioral Correlates of Range Expansion. International Ornithological Congress, Campos do Jordao, Brazil (oral presentation)

A.L. Liebl, E. Schmidt, L.B. Martin (2010) Physiological Correlates of Neophobic behavior: Is Regulation of the Hypothalamic-Pituitary-Adrenal Axis Correlated to Responses to Novelty? Society for Integrative and Comparative Biology, Seattle, WA. (oral presentation)

A.L. Liebl, N. Tu, L.B. Martin. (2009) Development of quantitative real-time PCR tools for ecological immunologists: surmounting technological limitations in the field. Society for Behavioral Endocrinology, East Lansing MI. (poster)

A.L. Liebl, J.L. Alam, and L.B. Martin. (2009) Rapid quantification of bactericidal capacity of avian plasma. Society for Integrative and Comparative Biology, Boston, MA. (poster)

A.L. Liebl. (2006). Post Katrina New Orleans' sediment: identification of a new bacterial species. South Central Branch of American Society of Microbiology, Lafayette, LA. (poster)

Collaboration Presentations

L.B. Martin and A.L. Liebl (2014) Individual physiological plasticity in an avian range expansion, Society for Integrative Biology, Austin, TX

H.J. Kilvitis, A.L. Liebl, and L.B. Martin (2014) Stress-immune interactions in a range-expanding bird: covariation in stress hormone and Toll-like receptor expression, Society for Integrative Biology, Austin, TX

L.B. Martin and A. L. Liebl (2013) Individual physiological plasticity in an avian range expansion, Ecological Society of America, Minneapolis, MN

A. Schrey, M. Alvarez, C. Foust, H. Kilvitis, A. Liebl, L. Martin, C. Richards (2013) Ecological Epigenetics: Beyond MS-AFLP, Society of Integrative Biology, San Francisco, CA

C.L. Richards, M. Boruta, O. Bossdorf, C.A.C. Coon, C.M. Foust, A.R. Hughes, H.J. Kilvitis, A.L. Liebl, A.B. Nicotra, M. Pigliucci, M.H. Roberston, A.W. Schrey (2013) Epigenetic mechanisms of phenotypic plasticity, Society for Integrative Biology, San Francisco, CA

H.J. Kivitis, A.L. Liebl, M. Boruta, C.L. Richards, L.B. Martin (2013) Epigenetic control of the immune system in a passerine bird, Society for Integrative Biology, San Francisco, CA

A. Schrey, A.L. Liebl, C.L. Richards, L.B. Martin (2012) The relative significance of genetic and epigenetic diversity for house sparrow colonization of Kenya, Society of Integrative Biology, Charleston, SC.

A.J. Brace, A.L. Liebl, M. Boruta, L.B. Martin (2012) The effects of captivity on immune function and physical performance in house sparrows. Society of Integrative Biology, Charleston, SC.

Travel Awards:

Ecological Epigenetics, Society for Integrative and Comparative Biology, 2013

NASCE Travel Award, 2011

University of South Florida Honors College Mentor Award, 2011

International Ornithological Congress Graduate Student Award, 2010

University of South Florida Student Government Travel Award, 2010

University of South Florida Honors College Mentor Award, 2010

Psychoneuroimmunology meets Integrative Biology poster Award, Society for Integrative and Comparative Biology, 2009

Leadership Experiences:

Mentor, University of Exeter, 2013-present (underlined indicates individual research project)

S. Biddiscombe, E. Capp, M. Creasey, A. Cones, H. Fitzgerald, A. Francois, T. Harris, M. Henskens, R. Hollis, C. Martin-Taylor, E. Roper, J. Thomson, N. Stopford

Undergraduate Mentor, University of South Florida, 2008-2013 (underlined indicates individual research project)

J. Alam, Z. Alipour, A. Brace, M. Fang, A. Gallaty, A. Garringer, C. Jofeson, L. Kidd, B. Leigh, A.M. Nguyen, J. Patel, C. Ruiz Lorenzo, S. Munguia, E. Schmidt, R. Shah, A. Sierra, N. Tu, A. Urban, D. Wiley

Outreach:

Chestnut-crowned Babblers: Cooperative Living in the Outback, Mossman High School, Fowlers Gap, September 23, 2015

Adaptations for Life in the Outback, School of the Air, Fowlers Gap, August 20-22, 2013

Three day session for local children on the adaptations necessary to survive the outback

Research blog, 2012-2013

<http://andrealieblkenyaresearch.blogspot.com>; blog maintained to communicate science with school children; site garnered more than 1700 page views from people from 10 different countries

Great American Teach In, Woodbridge Elementary School, Fall 2010, 2011

Graduate representative to faculty job search committee, University of South Florida, Spring 2010

Service:

Peer Reviewer

Behavioral Ecology, Ethology, Functional Ecology, General and Comparative Endocrinology, Journal of Animal Ecology, Methods in Ecology and Evolution, Molecular Ecology, National Science Foundation, The Auk, The Wilson Journal of Ornithology

Poster Judge, Postgraduate Researcher Conference, University of Exeter, 2014-2015

Poster Judge, Society for Integrative and Comparative Biology, Austin, TX, January, 2014

Published Sequences:

Interleukin-6, *Passer domesticus*, Ascension number: GU229791

Interleukin-1 β , *Passer domesticus*, Ascension number: GU229790

Toll-like receptor 4, *Passer domesticus*, Ascension number: GU2289

Toll-like receptor 3, *Passer domesticus*, Ascension number: GU2288

Toll-like receptor 2, *Passer domesticus*, Ascension number: GU2287

Recombination activating protein 2, *Passer domesticus*, Ascension number: GU2286

Recombination activating protein 1, *Passer domesticus*, Ascension number: GU2285

Mineralocorticoid receptor, *Passer domesticus*, Ascension number: GU2284

Glucocorticoid receptor, *Passer domesticus*, Ascension number: GU2283