

Curriculum Vitae

Brittany R. Jenkins

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EDUCATION

M.A., Ecology and Evolutionary Biology, University of Colorado at Boulder, 2012

B.S., Zoology and Physiology, University of Wyoming, 2008

PROFESSIONAL EXPERIENCE

Research

Graduate Student Research Assistant, Department of Microbiology and Immunology, Montana State University, Drs. Douglas Kominsky and Seth Walk, 2015 – Present

Professional Associate Research Scientist, Department of Zoology and Physiology, University of Wyoming, Drs. Brian Cherrington and Amy Navratil, 2013 – 2015

Independent Contractor for RAD-tag next-generation sequencing library prep, Department of Ecology and Evolutionary Biology, University of Colorado at Boulder, collaboration with Dr. Rebecca J. Safran, Dr. Nolan Kane, and Dr. Alex Buerkle (University of Wyoming), 2012 – 2014

Graduate Student, thesis title: *Stress hormones and selection: Assessing the physiological underpinnings of a sexually selected melanin-based trait and the roles of genes and environment in shaping corticosterone profiles*. Department of Ecology and Evolutionary Biology, University of Colorado at Boulder, Dr. Rebecca J. Safran, 2010 – 2012.

Professional Research Associate, Department of Ecology and Evolutionary Biology, University of Colorado at Boulder, Dr. Rebecca J. Safran, 2009 – 2010.

Lab Technician, Department of Botany, University of Wyoming, Dr. Alex Buerkle, 2007 – 2009

Teaching

Graduate Teaching Assistant, BIOB 410 Immunology, Montana State University, 2016 – 2017

Graduate Teaching Assistant, Laboratory for EBIO 1210 General Biology I and Laboratory for EBIO 1220 General Biology II, University of Colorado at Boulder, 2010 – 2012

Lecture and Teaching Assistant Coordinator, General Biology II, University of Colorado at Boulder, Spring and Summer 2012

PUBLICATIONS

- Alexeev, E.E., Lanis, J.M., Kao, D.J., Campbell, E.L., Kelly, C.J., Battista, K.D., Gerich, M.E., **Jenkins, B.R.**, Walk, S.T., Kominsky, D.J., Colgan, S.P. Microbiota-derived indole metabolites promote human and murine intestinal homeostasis through regulation of interleukin-10 receptor. *Am J Pathol* 188, 1183-1194. doi: 10.1016/j.ajpath.2018.01.011
- Vitousek, M.N., **Jenkins, B.R.**, Hubbard, J.K., Kaiser, S.A., Safran, R.J. 2017 An experimental test of the effect of brood size on glucocorticoid responses, parental investment, and offspring phenotype. *Gen Comp Endocr.* doi: 10.1016/j.ygcen.2017.01.021
- Safran, R.J., Vortman, Y., **Jenkins, B.R.**, Hubbard, J.K., Wilkins, M.R., Bradley, R.J., Lotem, A. 2016 The maintenance of phenotypic divergence through sexual selection: An experimental study in barn swallows *Hirundo rustica*. *Evolution* 70, 2074-84. doi:10.1111/evo.13014
- Safran, R.J., Scordato, E.S.C., Wilkins, M.R., Hubbard, J.K., **Jenkins, B.R.**, Albrecht, T., Flaxman, S.M., Karaardic, H., Vortman, Y., Lotem, A., Nosil, P., Pap, P., Shen, S., Chan, S.-F., *Parchman, T.L., Kane, N.C.* 2016 Genome-wide differentiation in closely related populations: the roles of selection and geographic isolation. *Mol Ecol.* 25, 3865-83. doi: 10.1111/mec.13740
- Li, G., Hayward, I.N., **Jenkins, B.R.**, Rothfuss, H.M., Young, C.H., Nevalainen, M.T., Muth, A., Thompson, P.R., Navratil, A.M., Cherrington, B.D. 2016 Peptidylarginine deiminase 3(PAD3) is upregulated by prolactin stimulation of CID-9 cells and expressed in the lactating mouse mammary gland. *PLoS ONE*. doi:10.1371/journal.pone.0147503
- Hubbard, J.K., **Jenkins, B.R.**, Safran, R.J. 2015 Quantitative genetics of plumage color: lifetime effects of early nest environment on a colorful sexual signal. *Ecol and Evol.* 5, 3436-49. doi: 10.1002/ece3.1602
- Vitousek, M.N., **Jenkins, B.R.**, Safran, R.J. 2014 Stress and success: individual differences in the glucocorticoid stress response predict behavior and reproductive success under high predation risk. *Horm Behav.* 66, 812-19. doi:10.1016/j.yhbeh.2014.11.004
- Bradley, R. J., Hubbard, J.K., **Jenkins, B.R.**, Safran, R.J. 2014 Patterns and ecological predictors of age-related performance in female North American barn swallows, *Hirundo rustica erythrogaster*. *Behav Ecol Sociobiol.* 68, 1883-92. doi: 10.1007/s00265-014-1797-5
- Jenkins, B.R.**, Vitousek, M.N., Hubbard, J.K., Safran, R.J. 2014 An experimental analysis of the heritability of variation in glucocorticoid concentrations in a wild avian population. *Proc Biol Sci.* 281. doi: 10.1098/rspb.2014.1302
- Jenkins, B.R.**, Vitousek, M.N., Safran, R.J. 2013 Signaling stress? An analysis of phaeomelanin-based plumage color and individual corticosterone levels at two temporal scales in North American barn swallows, *Hirundo rustica erythrogaster*. *Hormon and Behav.* 64, 665-672. doi: 10.1016/j.yhbeh.2013.08.006
- Parchman, T.L., Benkman, C.W., **Jenkins, B.**, Buerkle, C.A. 2011 Low levels of population genetic structure in *Pinus contorta* (Pinaceae) across a geographic mosaic of co-evolution. *Am J Bot.* 98, 669-679. doi: 10.3732/ajb.1000378

PRESENTATIONS, GRANTS & AWARDS

Jenkins, B.R., Davis, R.J., Navratil, A.N. *Pituitary-specific ablation of JNK 1/2 leads to impaired fertility*. Poster presentation at the Endocrine Society/ICE Conference, Chicago, IL, 2014.

Jenkins, B.R., Vitousek, M.N., Safran, R.J. *Heritability of the physiological stress response in the North American barn swallow *Hirundo rustica erythrogaster**. Poster presentation at the North American Ornithological Conference, Vancouver, B.C., 2012.

Jenkins, B.R., Vitousek, M.N., Safran, R.J. *Information content of sexual signals: Does melanin-based plumage color predict stress responsiveness?* Poster presentation at the Wilson Ornithological Society Conference, Kearney, NB, 2011.

Cole-Tierney Research Award, Montana State University, 2018

Graduate Travel Award, Research Training at University of Michigan – Dr. Jason Spence Lab, Montana State University, 2016

Molecular Biosciences Program Fellowship, Montana State University, 2015 - Present

Department of Ecology and Evolutionary Biology Graduate Student Grant, University of Colorado at Boulder, 2011

Bev Sears Graduate School Grant, University of Colorado at Boulder, 2011

Sigma Xi Grants-in-aid Research Grant, 2011

Graduated *cum laude* (GPA 3.92), University of Wyoming, 2008

Wyoming NSF EPSCoR Undergraduate Research Fellowship, University of Wyoming, Dr. Alex Buerkle, Spring and Summer 2008

Markow Botany Research Scholarship, Wyoming Native Plant Society, Dr. Alex Buerkle, 2008

TECHNICAL SKILLS

In vitro models: embryonic stem cells, human intestinal organoids, immortalized cell lines, tissue/cell culture maintenance, transformation and transfection

In vivo murine models: husbandry, isoflurane anesthesia, gavage, intraperitoneal injection, blood sample collection and tissue harvest

Molecular laboratory methods: DNA and RNA extraction, PCR, RT-qPCR, library preparation for of next-generation sequencing (Illumina), ELISA, western blotting, immunohistochemistry/ immunofluorescence, confocal microscopy, bioorthogonal non-canonical amino acid tagging (BONCAT)

Field and ecological methods: capture and handle of wild avian species, collection of blood and tissue samples and morphometric data, intramuscular injection, behavioral observations

Data Analysis Software: R, SAS, JMP, Prism, ImageJ, Excel, Sequencher, GeneMapper, Cervus,