

## E. A. McKenney

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### Education

- 2017 PhD, Biology Major, Bioinformatics Minor, Duke University
- 2011 MS, Animal Science Major, Biotechnology & Nutrition Co-Minor, NC State University
- 2008 BS, Biology Major, Chemistry Minor, University of North Carolina at Chapel Hill, NC

### Appointments

- 2019-present **Lecturer and Academic Coordinator**, Applied Ecology, NC State University
- 2018-2021 **Graduate Faculty**, Member of graduate thesis committee, Northern Michigan University
- 2017-2019 **Postdoctoral researcher**, Microbial ecology and education research, Applied Ecology, NC State University  
Mentor: Rob Dunn
  - Led team science research characterizing the microbial community ecology of sourdough starters
  - Partnered with local schools and businesses to engage hundreds of students in authentic research
- 2011-2018 **Lead Natural Science Instructor**, NC Governor's School, Winston-Salem, NC
  - Developed interdisciplinary curricula for gifted high school students
  - Facilitated independent research projects in applied ecology topics
- 2012-2014 **Contract Editor**, American Journal Experts
- 2009-2010 **Lab Technician**, Lab Corporation of America, Research Triangle Park, NC
- 2008-2009 **Professional Intern**, Animal Nutrition & Research, Walt Disney World, Orlando, FL

### Peer-reviewed publications

- Finn, SMB, U Scheuermann, ZE Holzkecht, Q Gao, MM Ibrahim, W Parker, JA Granek, SS Lin, **EA McKenney**, AS Barbas. 2019. The effect of levofloxacin on the lung microbiota of laboratory rats. *Experimental Lung Research*. In Press.
- Bornbusch, SL, LK Greene, **EA McKenney**, SJ Volkoff, FS Midani, G Joseph, WA Gerhard, U Iloghalu, J Granek, CK Gunsch. 2019. A comparative study of gut microbiomes in captive nocturnal strepsirrhines. *American Journal of Primatology*. DOI: 10.1002/ajp.22986
- Greene, LK, SL Bornbusch, **EA McKenney**, RL Harris, SR Gorvetzian, AD Yoder, CM Drea. 2019. The importance of scale in comparative microbiome research: New insights from the gut and glands of captive and wild lemurs. *American Journal of Primatology*. DOI: 10.1002/ajp.22974
- Ren, L, Holzkecht, RA, ZE Holzkecht, SH Kotze, DE Bowles, SS Lin, **EA McKenney**, W Parker. 2019. A mole-rat's gut microbiota suggests selective influence of diet on microbial niche space and evolution. *Experimental Biology & Medicine* 244:471-483. DOI: 10.1177/1535370219828703
- Ryan, SF, NL Adamson, A Aktipis, LK Andersen, R Austin, L Barnes, MR Beasley, KD Bedell, S Briggs, B Chapman, CB Cooper, JO Corn, NG Creamer, JA Delborne, P Domenico, E Driscoll, J Goodwin, A Hjarding, JM Hulbert, S Isard, MG Just, K Kar Gupta, MM Lopez-Urbe, J O'Sullivan, EA Landis, AA Madden, **EA McKenney**, LM Nichols, BJ Reading, S Russell, N Sengupta, LR Shapiro, LK Shell, JK Sheard, DD Shoemaker, DM Sorger, C Starling, S Thakur, RR Vatsavai, M Weinstein, P Winfrey, RR Dunn. 2018. The role of citizen science in addressing grand challenges in food and agriculture research. *Proc R Soc B* 285: 20181977. DOI: <http://dx.doi.org/10.1098/rspb.2018.1977>.
- Finn, SMB, U Scheuermann, ZE Holzkecht, W Parker, JA Granek, SS Lin, **EA McKenney**, AS Barbas. 2018. Effect of gastric fluid aspiration on the lung microbiota of laboratory rats. *Experimental Lung Research* 44:201-210. DOI: 10.1080/01902148.2018.1482976
- Greene, LK, **McKenney, EA**, O'Connell, TM, Drea CM 2018. The critical role of dietary foliage in maintaining the gut microbiome and metabolome of folivorous sifakas. *Scientific Reports* 8:14482.
- Greene, LK, **McKenney, EA** 2018. The inside tract: the appendicular, cecal, and colonic microbiome of captive aye-ayes. *American Journal of Physical Anthropology*. DOI: 10.1002/ajpa.23481.
- McKenney, EA**, K Koelle, RR Dunn, AD Yoder. 2018. The ecosystem services of animal microbiomes. *Molecular Ecology*. DOI: 10.1111/mec.14532.
- McKenney, EA**, M Maslanka, A Rodrigo, AD Yoder. 2017. Bamboo specialists from two mammalian orders (Primates, Carnivora) share a high number of low-abundance gut microbes. *Microbial Ecology*. Doi: 10.1007/s00248-017-1114-8. Featured on [NSF Science 360](#).
- McKenney, EA**, TM O'Connell, A Rodrigo, AD Yoder. 2017. Feeding strategy shapes gut metagenomic enrichment and functional specialization in captive lemurs. *Gut Microbes*. doi: 10.1080/19490976.2017.1408762. Featured on [Smithsonian.com](#) and [NSF Science 360](#)
- Villeneuve, C., HH Kou, H Eckermann, A Palkar, LG Anderson, **EA McKenney**, RR Bollinger, W Parker. 2017. Evolution of the hygiene hypothesis into biota alteration theory: What are the paradigms and where are the clinical applications? *Microbes & Infection*
- McKenney, EA**, LK Greene, CM Drea, AD Yoder. 2017. Down for the count: *Cryptosporidium* infection depletes the gut microbiome in Coquerel's sifakas. *Molecular Ecology in Health & Disease*. Featured on [Phys.org](#)

- McKenney, EA**, T Flythe, C Millis, J Stalls, JM Urban, RR Dunn, JL Stevens. 2016. Symbiosis in the Soil: Citizen Microbiology in Middle and High School Classrooms. *Journal of Microbiology & Biology Education*
- Williamson, LL, **EA McKenzie**, JF Rawls, SD Bilbo, W Parker. 2016. Got worms? Helminths prevent long-term immune sensitization and cognitive dysfunction induced by early-life infection. *Brain, Behavior, and Immunity* 51:14-28. doi:10.1016/j.bbi.2015.07.006
- McKenney, EA**, LL Williamson, AD Yoder, JF Rawls, SD Bilbo, W Parker. 2015. Alteration of the rat cecal microbiota during colonization with the helminth *Hymenolepis dimunita*. *Gut Microbes* 6:3,182-193. Doi:10.1080/19490976.2015.1047128
- McKenney, EA**, A Rodrigo, AD Yoder. 2015. Patterns of gut bacterial colonization in three primate species. *PLoS ONE* 10(5):e0124618. Doi:10.1371/journal.pone.0124618
- McKenney, EA**, M Ashwell, J Lambert, V Fellner. 2014. Fecal microbial diversity and putative function in captive *Gorilla gorilla*, *Pan troglodytes*, *Papio hamadryas*, and *Arctictis binturong*. *Integrative Zoology* doi: 10.1111/1749-4877.
- Joanna E. Lambert; **EA McKenzie**; V Fellner; A Hartstone-Rose. 2014. Binturong (*Arctictis binturong*) and kinkajou (*Potos flavus*) digestive strategy: implications for interpreting frugivory in Carnivora and Primates. *PLoS ONE* 9(8): e105415. doi: 10.1371/journal.pone.0105415
- Lambert, JE, A Hartstone-Rose, V Fellner, **EA McKenzie**. 2011. How to be a frugivore: fruit, carbohydrates, and digestive physiology among Primates and Carnivora. *American Journal of Primatology* 71(suppl 1):72-73.
- Lambert, JE, A Hartstone-Rose, V Fellner, **EA McKenzie**. 2010. Digestive physiology and use of carbohydrates by arboreal, frugivorous Carnivora (*Arctictis binturong*, *Potos flavus*): a test of convergent evolution with the primate pattern. *American Journal of Physical Anthropology* 141 (suppl 50): 150-151.

## Research grants

- 2018 **Duke Lemur Center Director's Fund. Awarded \$5,450.** The inside scoop: The microbial consortia along the gastrointestinal tract of thirteen lemur species.
- 2018 **Huron Mountain Wildlife Federation Research Award. Awarded \$4,999.** Assessing the link between forest disturbance and carnivore gut microbial diversity.
- 2014 **NSF Doctoral Dissertation Improvement Grant. Awarded \$31,640.** Gut instincts: microbial community assembly after birth and disease in captive lemur species.
- 2014 **Duke Biology Grant-in-Aid. Awarded \$1,000.** From form to function: characterizing gut colonization in lemurs.
- 2012 **Duke Lemur Center Director's Fund. Awarded \$500.** Lemur colonization: a study of microbial community assemblage from birth to adulthood.
- 2012 **Duke Biology Grant-in-Aid. Awarded \$1,000.** Gastrointestinal colonization in lemurs.
- 2010 **NC State University Faculty Research and Professional Development Grant. Awarded \$4,190.** The effect of dietary regimens on intestinal microbial diversity.

## Teaching experience

- 2019 **Instructor of Record**, AEC460: Field Ecology, NC State University
- 2019 **Instructor of Record**, AEC400: Applied Ecology, NC State University
- 2018 Microbiome workshops: DNA extraction and bioinformatic analysis in R, Northern Michigan University
- 2018 DNA extraction workshop, NC State University
- 2015 **Instructor of Record**, Bio490S: Microbiome Research, Duke University
- 2015 Co-Instructor, Bio790: Professional Development for Careers in Biology, Duke University
- 2014 Microbiome workshop: bioinformatics analysis in QIIME, Duke University
- 2013-2015 Teaching Assistant, Bio202L: Introduction to Genetics and Evolution, Duke University
- 2012, 2104 Teaching Assistant, Bio262: People, Plants, and Pollution, teaching assistant, Duke University
- 2011-2017 **Natural Science Instructor**, NC Governor's School West
- 2010 Teaching Assistant, ANS400: Companion Animal Management, NC State University
- 2006 Teaching Assistant, Plant Ecology, NC Governor's School West

## Professional Development

- 2017-present Public Science Fellow, NC State University
- 2017-present GLBT Advocate, NC State University
- 2016 Creative Science Teaching Conference, Society for Experimental Biology, London
- 2016 How to be an Ally Workshop, Women in Science & Engineering, Duke University
- 2016- 2017 Integrative Bioinformatics to Investigate and Engineer Microbes (IBIEM) Graduate Trainee, Duke University
- 2015 Bass Teaching Fellow, Duke University
- 2015 Flipped Classrooms Workshop, Duke University
- 2014 Preparing Future Faculty Fellow, Duke University
- 2014- 2015 Certificate in College Teaching, Duke University
- 2014 Allie Training, Student Affairs, Duke University
- 2014 Teaching Queer Workshop, Duke University
- 2014 ACC&U Transforming STEM Higher Education Conference, Atlanta, GA

- 2014 Using rubrics to assess student performance Workshop, Duke University
- 2014 Beneficial Microbes Conference, American Society for Microbiology, Washington, D.C.

## Invited Talks

- 2019 **Keynote.** The Latest Results from Citizen Science Projects Tracking Hundreds of Sourdough Starters from Around the World. *On the Rise III*: International Bread Symposium, Johnson & Wales, Charlotte NC
- 2019 Sourdough Citizen Science workshops and Grain Innovators panelist. Asheville Bread Festival 2019. Asheville, NC
- 2019 Countertop Science: Sourdough as a scalable system for citizen science. BakingTech 2019. Chicago, IL
- 2018 Gut and Grain Microbes: New pathways to health. Oldways Whole Grains Conference. Seattle, WA
- 2018 Citizen Science Leavens Sourdough Research. *On the Rise II*: International Bread Symposium, Johnson & Wales, Charlotte NC
- 2018 Microbial Primatology: what do microbes tell us about primates? ZO 317: Primate Ecology, Behavior, and Evolution; NC State University, Raleigh NC
- 2018 Gut microbial ecology in lemurs and pandas. AEC 360: General Ecology, NC State University, Raleigh NC
- 2018 The Sourdough Project: citizen science at NC State. Osher Lifelong Learning Center, Raleigh NC
- 2017 The comparative ecology of guts: from lemur feces to human cadavers to sourdough bread. German Center for Integrative Biodiversity Research, Leipzig
- 2017 Dietary effects on gut microbes and health: implications for captive management. ANS 231: Animal Nutrition Lab, NC State University, Raleigh NC
- 2017 In sickness and in health: ecology of the human gut microbiome. Sea and Coffee seminar series, UNC-Wilmington
- 2016 A tale of two systems: captive studies of gut microbiota at the Duke Lemur Center and the National Zoo. Guest lecture, Smithsonian National Zoological Park, Washington D.C.
- 2016 Gut Instincts: Lemur microbial community dynamics in health and disease. 50<sup>th</sup> Anniversary Symposium, Duke Lemur Center, Durham NC
- 2016 Microbial Primatology, Meredith College, Raleigh NC
- 2016 Making Sense of Invisible Multitudes, UNC-Pembroke
- 2015 Exploring the Bamboo Lemur metagenome using the Ion Torrent 16S Metagenomic Kit: Patterns from a dietary specialist. Ion Torrent World Tour, Research Triangle Park NC
- 2010 A comparative assessment of fermentation and microbes in herbivores and omnivores. Microbiome Research-In-Progress, UNC Chapel Hill

## Honors & awards

- 2017 Dean's Award for Excellence in Teaching, Duke University
- 2016-2017 Katherine Goodman Stern Fellowship, Duke University
- 2016 Susan Crissey Memorial Travel Award, Comparative Nutrition Society
- 2015 Biology Departmental Fellowship, Duke University
- 2014 Best Presentation, 10<sup>th</sup> Comparative Nutrition Society Symposium
- 2014 Duke University Delegate, Singapore Global Young Scientist Summit
- 2011 Interdisciplinary Student Research Award, Sigma Xi Conference, Raleigh, NC
- 2011 Africana Studies Project Scholarship, NC State University
- 2011 Life Sciences Research Award, NCSU Graduate Student Research Symposium
- 2010-2011 Research Assistantship, Animal Science department, NC State University
- 2005-2008 Institutional Grant, UNC Chapel Hill
- 2004-2008 National Merit Scholar

## Broader Impacts & Outreach

- 2019 [Guest blogger](#) for the NC Museum of Natural Sciences
- 2019 Sourdough science partnership engaging 270 middle school students and Boulted Bread Bakery in Raleigh NC
- 2018 [Got Guts?](#) global citizen science project, NC State University
- 2018 Citizen Science Fermentation Workshop Series, Museum of Natural Science, Raleigh, NC
- 2018 Food Ecology Dining Services Outreach Events, NC State University
- 2017-2018 [Sourdough for Science](#): microbiology in the classroom, NC State University
- 2017 "Do gut bacteria affect our health?" Patient educational brochure for the Pediatric Obesity Microbiome and Metabolism Study (POMMS), Duke University.
- 2015 Module on lemur evolution & ecology for IDEA STEM education app, Sydney, Australia
- 2014, 2015 The Scientific Research and Education Network, Raleigh, NC
- 2013 Science Under the Stars, Duke University
- 2013 American Institute of Biological Sciences Congressional Visits, Washington, D.C.
- 2013-2017 Bugfest, Schiele Museum, Charlotte, NC
- 2012-2014 Science Day, Club Boulevard Magnet Elementary School, Durham, NC

- 2013 **Awarded \$498 for 6<sup>th</sup> grade curriculum enrichment** at Lowe's Grove Middle School. Vision diversity: Different types of animal eyes and how they see. Duke Student Science Education Outreach.
- 2013 **Awarded \$1,018 for 8<sup>th</sup> grade curriculum enrichment** at Lowe's Grove Middle School. Food fight! Evolution of plant warfare. Duke Student Science Education.
- 2012 **Awarded \$466 for 7<sup>th</sup> grade curriculum enrichment** at Lowe's Grove Middle School. Food, guts, and bugs: Diet, nutrition, and gut microbes. Duke Student Science Education Outreach.
- 2012 Meet a Scientist, Durham Museum of Life & Science, Durham, NC
- 2012 DNA Day, UNC Chapel Hill
- 2012 Building Opportunities and Overtures in Science and Technology, Durham, NC
- 2011 Durham School Days, Duke University

## **Professional & departmental service**

- 2018 Peer reviewer, *Frontiers Microbiology*: reviewed article on gut microbiota
- 2018 Peer reviewer, *Frontiers Microbiology*: reviewed article on gut microbiota
- 2018 Peer reviewer, *Journal of Animal Ecology*: reviewed article on gut microbiota
- 2017 Peer reviewer, Leakey Foundation: reviewed grant proposal
- 2017 Peer reviewer, *American Journal of Primatology*: reviewed article on gut microbiota
- 2017 Peer reviewer, *Microbiome*: reviewed article on gut microbiota
- 2017 Peer reviewer, *American Journal of Primatology*: reviewed article on gut microbiota
- 2017 Panelist, Science communication: research to lesson plan
- 2016 Peer reviewer, *Primates*: reviewed article on oral microbiota
- 2016 Panelist, Undergraduate Publications, ASM, Duke University chapter
- 2016 Biology Graduate Student Handbook Committee, Duke University
- 2015-2016 Diverse Careers Taskforce, Society for the Study of Evolution
- 2015 Peer reviewer, *Antimicrobial Agents and Chemotherapy*: reviewed article on gut microbiota
- 2015-2017 Student Liaison, Board of Directors, Comparative Nutrition Society
- 2014 Professional Development Planning Committee, Biology Department, Duke University
- 2014 Panelist, Teaching Assistant Orientation Program, Biology Department, Duke University
- 2014 Peer reviewer, *Journal of Mammalogy*: reviewed article on gut microbiota
- 2014 Microbes & Symbiosis session chair, SICB annual meeting
- 2013 Graduate Outreach Committee Co-founder, Biology Department, Duke University
- 2012-2016 Sue Crissey Zoological Nutrition Symposium Steering Committee
- 2012 WiSE Research Symposium Planning Committee, Duke University
- 2012-2014 Graduate Student Wiki Webmaster, Biology department, Duke University
- 2012 Peer reviewer, *Applied & Environmental Microbiology*: reviewed article on gut microbiota
- 2012 Graduate Recruitment Committee, Biology department, Duke University
- 2011-2016 WiSE Planning Committee, Duke University
- 2011-2012 Biology department Office Czar, Duke University

## **Activities**

- 2015 Inter-departmental Book Drive to benefit the NC Women's Correctional Facility, sponsored by Women in Science and Engineering, Duke University
- 2011 Chair, Women in Science and Engineering Science Fiction Book Club, Duke University
- 2014-2016 Biology Learning and Reading Group, Duke University
- 2011 Nutrition Journal Club Secretary, Animal Science department, NC State University
- 2010-2011 Graduate Student Association Secretary, NC State University

## **Seminars**

- McKenney, EA**, M. Maslanka, A., Rodrigo, A.D. Yoder. 2016. You (and your microbiome) are what you eat. Women in Science and Engineering Symposium
- McKenney, EA**, M. Maslanka, A. Rodrigo, A.D. Yoder. 2016. Microbiome convergence in bamboo specialists. NC Triangle Microbial Systems Group
- McKenney, EA**, A. Rodrigo, A.D. Yoder. 2016. Form and function from birth to weaning. Duke Population Biology
- McKenney, EA**, A. Rodrigo, A.D. Yoder. 2015. Gut microbes: the ins and outs of health and disease. Society of Duke Fellows
- McKenney, EA**, A. Rodrigo, A.D. Yoder. 2014. Lemur gut microbiota: findings and challenges. Duke Genomics of Microbial Systems
- McKenney, EA**, A. Rodrigo, A. D. Yoder. 2013. The Organ Trail: Gut microbial community assembly in lemurs. Duke Behavioral, Population, and Community Ecology
- McKenney, EA**, A. Rodrigo, A.D. Yoder. 2013. A first look at gut colonization in lemurs. Duke Biology Retreat
- McKenney, EA**, A. Rodrigo, A.D. Yoder. 2013. Gut microbial ecology in captive lemurs. Duke Genomics of Microbial Systems
- McKenney, E.**, S. Wu, A.D. Yoder, A. Rodrigo. 2012. Bytes and bugs: using bioinformatics to study complex microbial

communities. Duke Behavioral, Population, and Community Ecology

**McKenney, E.**, M. Ashwell, J. Lambert, V. Fellner. 2011. Characterizing the gut microflora in primate and carnivore species. Duke Behavioral, Population, and Community Ecology

**McKenney, E.**, V. Fellner, M. Ashwell, S. J. McLeod, A. O’Nan. 2010. The effect of diet on fermentation and microbial strategies in primate and carnivore species. NCSU Animal Science Nutritional

## **Abstracts & conference proceedings**

**McKenney, EA**, MS Thoemmes. 2019. Microbial Mismatch: The evolution of the primate microbiome. *88<sup>th</sup> Annual meeting of American Association of Physical Anthropologists*. Cleveland, OH: American Association of Physical Anthropologists

**McKenney, EA**, J Francese, S Hardy, K Kemp, E Landis, A Madden, L Nichols, A Oliverio, L Shapiro, L Shell, A Shoemaker, N Fierer, B Wolfe, RR Dunn. 2019. Sourdough for Science: microbiology from flour to ferment. *Citizen Science Association Conference*. Raleigh, NC: Citizen Science Association

Roche, C, **EA McKenziey**, RR Dunn, J Horvath. 2019. Fermented foods workshops teach citizen science hands-on about health. *Citizen Science Association Conference*. Raleigh, NC: Citizen Science Association

**McKenney, EA** 2016. Student-centered course design leverages creativity for effective, enhanced education. *Proceedings of Creative Science Teaching Symposium*. London, England: Society for Experimental Biology

**McKenney, E.A.**, A. Rodrigo, A.D. Yoder. 2016. Lemur gut metagenomes complement captive diet. *Proceedings of the 6<sup>th</sup> Conference on Beneficial Microbes*. Seattle, WA: American Society for Microbiology.

**McKenney, EA**, M. Maslanka, A. Rodrigo, A.D. Yoder. 2016. Microbial master plan: bamboo specialists; feeding strategy may depend on gut microbes. *Proceedings of the Eleventh Comparative Nutrition Society Symposium*. San Juan, PR: Comparative Nutrition Society.

**McKenney, EA**, A. Rodrigo, A.D. Yoder. 2016. Gut microbiota complement host metabolism to augment nutritional gain. *Proceedings of the Eleventh Comparative Nutrition Society Symposium*. San Juan, PR: Comparative Nutrition Society.

**McKenney, EA**, L.K. Greene. 2015. In sickness and in health: gut microbiomes respond to enteric pathogens in juvenile Coquerel’s sifakas (*Propithecus coquereli*). *Proceedings of the Duke University Program in Ecology Symposium*

**McKenney, EA**, L.L. Williamson, A.D. Yoder, J.F. Rawls, S.D. Bilbo, W. Parker. 2014. Helminths alter the gut microbiome in rats. *Duke Microbiome Symposium*. Durham, NC: Genetics of Microbial Systems.

**McKenney, EA**, A. Rodrigo, A. D. Yoder. 2014. Microbiota reflect lemur nutrition and feeding across time scales. *Proceedings of the Tenth Comparative Nutrition Society Symposium*. Flat Rock, NC: Comparative Nutrition Society.

**McKenney, EA**, A. Rodrigo, A. D. Yoder. 2014. Host evolution and ecology govern community assembly of the gut microbiome in lemurs. *Proceedings of the Joint Annual Meeting of the Society for the Study of Evolution, the Society of Systematic Biologists, and the American Society of Naturalists*, Raleigh, NC: Society for the Study of Evolution.

**McKenney, EA**, A. Rodrigo, A. D. Yoder. 2014. Species-specific assembly of the gut microbiota in lemurs. *Proceedings of the Society for Integrative and Comparative Biology Annual Meeting*. Austin, TX: Society for Integrative and Comparative Biology.

**McKenney, EA**, S. Wu, A. S. Yoder, A. Rodrigo. 2013. MAPP: A pipeline for metagenomic analysis of complex microbial populations. *Proceedings of the Society for Integrative and Comparative Biology Annual Meeting*. San Francisco, CA: Society for Integrative and Comparative Biology.

**McKenney, EA**, S. Wu, A. S. Yoder, A. Rodrigo. 2012. Metanutrition: Using metagenomics to analyze the lemur microbiome. *Proceedings of the Seventh Crissey Zoological Nutrition Symposium*. Raleigh, NC: Environmental Medical Consortium.

**McKenney, EA**, S. Wu, A. S. Yoder, A. Rodrigo. 2012. Get with the program: women in bioinformatics. *Women in Science and Engineering Research Symposium*. Durham, NC: Sigma Xi.

**McKenney, E.**, M. Ashwell, J. Lambert, V. Fellner. 2011. A comparison of the gastrointestinal microbiota associated with Primate and Carnivora species. *Proceedings of the 125<sup>th</sup> Sigma Xi Annual Meeting and International Research Conference*, p. 157. Raleigh, NC: Sigma Xi.

**McKenney, E.**, A. O’Nan, S. J. McLeod, M. Ashwell, J. Lambert, V. Fellner. 2011. Microbial fermentation and ecology in Primate and Carnivore species. *Proceedings of the Sixth Annual NC State University Graduate Student Research Symposium* (p. 8). Raleigh, NC: North Carolina State University.

**McKenney, E.**, M. Ashwell, A. O’Nan, S. McLeod, V. Fellner, J. Lambert. 2010. The effect of diet on fermentation and microbial strategies in primate and carnivore species. *Proceedings of the Sixth Crissey Zoological Nutrition Symposium* (pp. 41-42). Raleigh, NC: Environmental Medical Consortium.

Lambert, J.E., Hartstone-Rose, A., Fellner V., Bovard, B., and **McKenney, E.** 2010. Frugivory and digestive physiology in arboreal, tropical Carnivora (*Arctictis binturong*, *Potos flavus*). *Proceedings of the 5<sup>th</sup> International Symposium on Frugivores and Seed Dispersal, Le Corum/Montpellier, CEFÉ-CNRS* p35.

**McKenney, EA**, A. O’Nan, V. Fellner, M. Ashwell. 2010. Evaluating the QIAamp DNA StoolKit for metagenomic studies in binturong (*Arctictis binturong*). *Proceedings of the Eighth Comparative Nutrition Society Symposium* (pp. 126-130). Tucson, AZ: Comparative Nutrition Society.

## **Membership in professional societies**

2016 National Center for Science Education

2014-present PULSE: the partnerships for undergraduate life sciences education

2013-present Society for the Study of Evolution

2012-present Society for Integrative and Comparative Biology  
2011-present Sigma Xi Scientific Research Society  
2011-present American Society for Microbiology  
2010-present Comparative Nutrition Society  
2011-present Gamma Sigma Delta Agricultural Honor Society  
2004-present National Society of Collegiate Scholars