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Katherine Ryan Amato
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MAJOR PROFESSIONAL INTERESTS

I am a biological anthropologist studying how the gut microbiome contributes to human and non-human primate health, ecology, and evolution. My research is centered on understanding microbial interactions with host diet, energetics, and metabolism, using life history theory as a guiding framework.

Key words: gut microbiome, primate, human evolution, nutrition, feeding ecology, plasticity,

EDUCATION

Postdoctoral Fellowship, Anthropology and Microbiome Analysis 2013-2015
University of Colorado Boulder
Advisors: Steven Leigh, Rob Knight

Certificate in Foundations in Teaching 2012
University of Illinois at Urbana-Champaign, Center for Teaching Excellence

Doctor of Philosophy, Ecology, Evolution and Conservation Biology 2008-2013
University of Illinois, Urbana-Champaign
Advisor: Paul Garber

Bachelor of Arts *summa cum laude*, General Biology with high honors 2003-2007
Dartmouth College

Tropical Field Studies 2006
Dartmouth College
Organization for Tropical Studies (Costa Rica), Discovery Bay Marine Laboratory (Jamaica)

Immersive Spanish 2005
Dartmouth College
Universidad Autonoma del Estado de Puebla (Mexico)

High School Marine Biology Program 2001
Shedd Aquarium

MISCELLANEOUS TRAINING

Certified SCUBA Open Water Diver, PADI 2005
Wilderness Risk Management Training, Dartmouth College 2004
Group Dynamics Training, Dartmouth College 2004

PREDOCTORAL AWARDS, HONORS, FELLOWSHIPS

First Place, Student Paper Competition, Congress of the International Primatological Society 2012
Best Student Presentation, American Society of Primatologists Annual Meeting 2011
National Science Foundation Graduate Research Fellow 2010-2013
Best Talk by Pre-Prelim Ph.D. Student, Grad. Students in Ecol. & Evol. Bio., UIUC 2010
Member, Phi Kappa Phi 2010-2013
Illinois Distinguished Fellowship 2008-2010

Fulbright Fellowship (Mexico)	2007-2008
Ray W. Smith Award, Dartmouth College	2007
Christopher G. Reed Biologist Award, Dartmouth College	2007
Florence Fletcher Charles Botany Prize, Dartmouth College	2007
Member, Phi Beta Kappa	2007-present
Associate Member, Sigma Xi	2007-present
2nd Place, Christopher Reed Science Competition, Dartmouth College	2007
Richter Memorial Grant, Dartmouth College	2006-2007
Presidential Scholar	2005-2006
Honors Second Group, Dartmouth College	2004-2007
Crute Fellow	2004-2005
Member, National Society of Collegiate Scholars	2004

POSTDOCTORAL RECOGNITIONS

Anthro. Grad. Student Assoc. Faculty Mentorship Award, Northwestern	2021
Karl Rosengren Faculty Mentoring Award, Northwestern	2021
CIFAR Fellow (Humans and the Microbiome)	2019-present
Finalist, Anthro. Grad. Student Assoc. Mentorship Award, Northwestern	2019, 2020
Karl Rosengren Faculty Mentoring Award, Northwestern	2019
Azrieli Global Scholar (Humans and the Microbiome), CIFAR	2016-2018
Invited Speaker, Early Career Scientists Symposium, University of Michigan	2015
TEDxJackson Hole Presenter	2014

EMPLOYMENT

Assistant Professor, Dept of Anthropology — 2015 - present
Preceptor, Interdisciplinary Biological Sciences Graduate Program — 2020 - present
Northwestern University
Evanston, IL

Postdoctoral Research Associate, Dept of Anthropology, BioFrontiers Institute — 2013 - 2015
University of Colorado Boulder
Boulder, CO

Fulbright Fellow/Young Explorer — 2007-2008
Institute for International Education/National Geographic
Los Tuxtlas, Veracruz, Mexico

Behavioral Research Intern — 2004-2006
Lester E. Fisher Center for the Study and Conservation of Apes
Regenstein Center for African Apes
Lincoln Park Zoo
Chicago, IL

Honors Student	2006-2007
Presidential Scholar	2005-2006
Crute Fellow	2004-2005
Women in Science Program Intern	2003-2004

Dartmouth College
Hanover, NH

RESEARCH SUPPORT

Past (Pre-doctoral)

Dartmouth College Reynolds Fellowship 2007-2008
Fulbright Garcia-Robles Fellowship 2007-2008
National Geographic Young Explorers Grant (Conservation Trust) 2007-2008
University of IL Beckman Institute Grant 2009
University of IL Tinker Summer Research Grant 2009
University of IL PEEC Summer Research Grant 2009
University of IL Dissertation Travel Grant 2011
National Geographic Waitt Grant 2010-2011
University of Illinois Isabel Norton Award 2012

Past (Post-doctoral)

Nacey Maggioncalda Foundation ($12,464) 2015
Impact of diet on the degradation of the black and gold howler monkey gut microbiota in fragmented habitats
PI: Amato

CIFAR Azrieli Global Scholarship ($77,000) 2016-2018
Early career fellowship to Amato
PI: Amato

Weinberg College Research Innovation Grant ($35,000) 2017-2018
Intergenerational influences on gut microbiota composition in Cebu, Philippines
PI: Amato, co-PIs: T. McDade, C. Kuzawa

Wenner-Gren Post-doctoral Award ($20,000) 2018-2019
A comparative evolutionary context for human-gut microbe interactions
PI: Amato

Leakey Foundation Research Grant ($24,973) 2017-2019
Response of primate gut microbiome function to increased faunivory
PI: E. Mallott, co-PI: Amato

CIFAR Catalyst Grant ($22,582) 2019-2020
Influence of the Neolithic transition on fiber fermentation in the human gut microbiome
Co-PIs: Amato, H. Poinar

Present

NSF DDIG ($25,192) 2021-2023
Doctoral Dissertation Research: The influence of the social environment on the infant skin microbiome
PI: Amato, co-PI: M. Manus

Wenner-Gren Pre-doctoral award ($20,000) 2021-2022
The influence of the social environment on the infant skin microbiome
PI: M. Manus, co-PI: Amato

NSF DEB-1938302 ($299,615 plus $45,068 supplement for trainee salary) 2020-2023
EAGER: Integrating host-associated microbes into trait-based community ecology frameworks
PI: Amato

NIH 1 R01 AG065546-01A1 ($4,204,371) 2020-2025

Microbiome-mediated therapies for aging and healthspan in marmosets
PI: C. Ross, co-PIs: Amato, K. Reveles, M. Power, B. Ridenhour

Manulife CIFAR Population Health & Well-being Grant ($29,858) 2020-2021
The influence of COVID-19 behavioral responses on early life microbial exposures
PI: Amato, co-PIs: M. Azad, M. Melby, M.G. Dominguez-Bello

Leakey Foundation Research Grant ($24,942) 2021-2022
The effect of plant antimicrobial properties on primate food choice
PI: Amato, co-PI: A. Barnett

CIFAR Catalyst Grant ($17,880) 2021-2022
One Health and the Microbiome of North American Livestock Workers
PI: J. Metcalf, co-PIs: Amato, N. Geva-Zatorsky, C. Tropini, M. Nichter, M. Melby

CIFAR Catalyst Grant ($21,525) 2021-2022
The functional evolution of the human microbiome
co-PIs: Amato, H. Chu

Pending
NSF Rules of Life: Emergent Networks ($2,968,136)
URoL:EN Effects of global social disturbances on local human-wildlife-environment interactions
PI: J. Loudon, co-PIs: Amato, L. Pedersen, M. Howells, A. Peralta

PUBLICATIONS
underline a student or postdoc in my lab
*indicates corresponding author role
**indicates shared authorship role

77. Frank, H.E.R., **K.R. Amato**, M. Trautwein, P. Maia, E. Liman, L. Nichols, K. Schwenk, P.A.S. Breslin, R. Dunn. (in review). The evolution of sour taste. *Proceedings of the Royal Society B.*

76. Kuthyar, S., K. Watson, S. Huang, L.J.N. Brent, M. Platt, J. Horvath, J. Gonzalez-Martinez, M. Martínez, F. Godoy-Vitorino, R. Knight, M.G. Dominguez-Bello**, **K.R. Amato**** (in review). Non-human primate data indicate the importance of environmental factors in driving urban-associated microbiome shifts. *FEMS Microbiology.*

75. McManus, N., S.M. Holmes, E.E. Louis, Jr., S.E. Johnson, A.L. Baden**, **K.R. Amato**** (in review). The gut microbiome as an indicator of habitat disturbance in a Critically Endangered lemur. *Oecologia.*

74. Martinez-Mota, R., N. Righini, E.K. Mallott, T.R. Gillespie**, **K.R. Amato**** (in press). The effects of endoparasite infection on the gut bacteria of wild black howler monkeys, *Alouatta pigra. American Journal of Primatology*

73. **Amato, K.R.*,** H. Jiang, S. Kuthyar, E. Rubenstein, V.A. Kirk, P.A. Pebsworth. (in review). Preliminary evidence that clay supplementation causes no short-term harm in primates and should be explored as an intervention for gastrointestinal symptoms. *Zoo Biology*

72. Liu, R.**, **K.R. Amato**, R. Hou, A. Gomez, D.W. Dunn, J. Zhang, P.A. Garber, C.A. Chapman, N. Righini, G. He, Gu Fang, B. Li, S. Guo. (in review). Digestive adaptations of both the fore- and hind-gut in a temperate colobine monkey. *Animal Microbiome.*

71. Mallott, E.K. and **K.R. Amato***. (in review). Butyrate production pathways in primate gut microbiomes. *Molecular Biology and Evolution*

70. **Amato, K.R.***, E.K. Mallott, P.D. Maia, M.L. Savo Sardaro. (in press). Pre-digestion as an evolutionary impetus for human fermented food use. *Current Anthropology*.

69. Sun, B., Y. Xia, S. Davison, A. Gomez, P.A. Garber, **K.R. Amato**, X. Xu, D.P. Xia, X. Wang, J.H. Li. (in press). Assessing the influence of environmental sources on the gut mycobiome of Tibetan Macaques. *Frontiers in Microbiology*.

68. Cortes-Ortiz, L. and **K.R. Amato.** (2021). Host genetics influence the gut microbiome. *Science.* 373(6551): 159-160.

67. Mallot, E.K. and **K.R. Amato*** (2021). Host specificity of the gut microbiome. *Nature Reviews Microbiology.* https://doi.org/10.1038/s41579-021-00562-3

66. **Amato, K.R.***, M.C. Arrieta, M. B. Azad, M.T. Bailey, J.L. Broussard, C.E. Bruggeling, E.C. Claud, E.K. Costello, E.R. Davenport, B.E. Dutilh, H.A. Swain Ewald, P. Ewald, E.C. Hanlon, W. Julion, A. Keshavarzian, C.F. Maurice, G.E. Miller, G.A. Preidis, L. Segurel, B. Singer, S. Subramanian, L. Zhao, C.W. Kuzawa. (2021). The human gut microbiome and health inequities. *Proceedings of the National Academies of Science.* 18(25): e2017947118

65. **Amato, K.R.*,** O.M. Chaves, E.K. Mallott, T.M. Eppley, F. Abreu, A.L. Baden, A.A. Barnett, J.C. Bicca-Marques, S.A. Boyle, C.J. Campbell, C.A. Chapman, M.F. De la Fuente, P. Fan, P.J. Fashing, A. Felton, B. Fruth, V.B. Fortes, C.C. Grueter, G. Hohmann, M. Irwin, J.K. Matthews, A. Mekonnen, A.D. Melin, D.B. Morgan, J. Ostner, N. Nguyen, A.K. Piel, B. Pinacho-Guendulain, E.P. Quintino-Arêdes, P.T. Razanaparany, N. Schiel, C.M. Sanz, O. Schülke, S. Shanee, A. Souto, J.P. Souza-Alves, F. Stewart, K.M. Stewart, A. Stone, B. Sun, S. Tecot, K. Valenta. E.R. Vogel, S. Wich, Y. Zeng. (2021). Fermented food consumption in wild nonhuman primates and its ecological drivers. *American Journal of Physical Anthropology.* 175(3): 513-530.

64. Manus, M.B., S. Kuthyar, A.G. Perroni-Marañón, A. Nuñez de la Mora, **K.R. Amato**. (in press). Comparing different sample collection and storage methods for field-based skin microbiome research. *American Journal of Human Biology.*

63. Sun, B., Y. Xia, P.A. Garber, **K.R. Amato**, A. Gomez, X. Xu, W. Li, M. Huang, D. Xia, X. Wang, J. Li. (2021). Captivity is associated with gut mycobiome composition in Tibetan macaques (Macaca thibetana). *Frontiers in Microbiology.* 12:885.

62. Finlay, B.B, **K.R. Amato**, M. Azad, M.J. Blaser, T.C.G. Bosch, H. Chu, M. Dominguez-Bello, D. Ehrlich, E. Elinav, N. Geva-Zatorsky, P. Gros, K. Guillemin, F. Keck, T. Korem, M. McFall-Ngai, M. Melby, M. Nichter, S. Pettersson, H. Poinar, T. Rees, C. Tropini, L. Zhao, T. Giles-Vernick. (2021) The hygiene hypothesis during a pandemic: consequences for the human microbiome. *PNAS.* 118 (6) e2010217118

61. Baniel, A., **K.R. Amato**, J.C. Beehner, T.J. Bergman, A. Mercer, R.F. Perlman, L. Petrullo, L. Reitsema, S. Sams, A. Lu, N. Snyder-Mackler. (2021). Seasonal shifts in the gut microbiome indicate plastic responses to diet in wild geladas. *Microbiome.* 9: 26.

60. Narat, V.[**], **K.R. Amato**[**], N. Ranger, M. Salmona, S.M. Delarue, S. Rupp, P. Ambata, R. Njouom, F. Simon, T. Giles-Vernick, J. LeGoff. (2020) A multi-disciplinary comparison of great ape gut microbiota in a central African forest and European zoo. *Scientific Reports.* 10: 19107.

59. Kuthyar, S.K., M.M. Kowalewski, D.M. Roellig, E.K. Mallott, Y. Zeng, T.R. Gillespie**, **K.R. Amato**.** (2020) Effects of Anthropogenic Habitat Disturbance and Giardia duodenalis Infection on a Sentinel Species' Gut Bacteria. *Ecology and Evolution.* https://doi.org/10.1002/ece3.6910

58. Manus, M.B., S. Kuthyar, A.G. Perroni-Marañón, Alejandra Núñez-de la Mora**, **K.R. Amato**** (2020). Infant skin bacterial communities vary by skin site and infant age across populations in Mexico and the United States. *mSystems* https://doi.org/10.1128/mSystems.00834-20

57. **Amato, K.R.**, S. Kuthyar, M. Ekanayke-Weber, R. Salmi, N. Snyder-Mackler, L. Wijayathunga, R. Vandercone, A. Lu. (2020) Gut Microbiome, Diet, and Conservation of Endangered Langurs in Sri Lanka. *Biotropica* 52(5): 981-990.

56. Mallott, E.K. and **K.R. Amato**. (2020) Phylosymbiosis, diet, and gut microbiome associated metabolic disease. *Evolution, Medicine, and Public Health.* 2020(1): 100-101.

55. Mallott, E.K., C. Borries, A. Koenig, **K.R. Amato****, A. Lu**. (2020) Reproductive hormones mediate changes in the gut microbiome during pregnancy and lactation in Phayre's leaf monkeys. *Scientific Reports*, 10: 9961.

54. Song, S.J., J.G. Sanders, F. Delsuc , J.L. Metcalf, **K.R. Amato**, M.W. Taylor, F. Mazel, H.L. Lutz, K. Winker, G.R. Graves, G. Humphrey, J.A. Gilbert, S.J. Hackett, K.P. White, H.R. Skeen, S.M. Kurtis, J. Withrow, T. Braile, M. Miller, K. G. McCracken, J.M. Maley, V.O. Ezenwa, A. Williams, J.M. Blanton, V.J. McKenzie, R. Knight 2020. Comparative Analyses of Vertebrate Gut Microbiomes Reveal Convergence between Birds and Bats. *mBio*. *11*(1).

53. Dunn, R.R., **K.R. Amato**, E. Archie, M. Arandjelovic, A.N. Crittenden, L.M. Nichols. (2020) The internal, external, and extended microbiomes of hominins. *Frontiers in Ecology and Evolution.* 8: 25.

52. Mann, A.E., F. Mazel, M.A. Lemay, E. Morien, V. Billy, M. Kowalewski, A. Di Fiore, A. Link, T.L. Goldberg, S. Tecot, A.L. Baden, A. Gomez, M.L. Sauther, F.P. Cuozzo, G.A.O. Britton, N.J. Dominy, R.M. Stumpf, R.J. Lewis, L. Swedell, **K.R. Amato**, L.W. Parfrey. (2020) Biodiversity of protists and nematodes in the wild non-human primate gut. *ISME Journal* 14: 609-622

51. Gupta, A., D. Dhakan, A. Maji, R. Saxena, P.K. Vishnu, S. Mahajan, J. Pulikkan, J. Kurian, A. Gomez, J. Scaria, **K.R. Amato**, A. Sharma, V. Sharma (2019) Association of Flavonifractor plautii, a flavonoid degrading bacterium, with the gut microbiome of colorectal cancer patients in India. *mSystems.* 4(6): e00438-19.

50. **Amato, K.R.*** and Stumpf, R.M. (2019) Moving forward with the primate microbiome: Introduction to a special issue of the *American Journal of Primatology*. *American Journal of Primatology.* 81(10-11): e23060

49. Frankel, J.S., Mallott, E.K., Hopper, L.M., Ross, S.R., **Amato, K.R.*** (2019) The effect of captivity on the primate gut microbiome varies with host dietary niche. *American Journal of Primatology*. 81(12): e23061.

48. Kuthyar, S., M. Manus, **K.R. Amato*.** (2019) Leveraging non-human primates for exploring the social transmission of microbes. *Current Opinion in Microbiology.* 50: 8-14.

47. **Amato, K.R.*,** E.K. Mallott, D. McDonald, N.J. Dominy, T. Goldberg, J.E. Lambert, L. Swedell, J.L. Metcalf, A. Gomez, G.A.O. Britton, R.M. Stumpf, S.R. Leigh, R. Knight. (2019). Convergence of human and Old World monkey gut microbiomes demonstrates the importance of human ecology over phylogeny. *Genome Biology.* 20(1): 201-213.

46. Mallott, E.K. , R.S. Malhi, **K.R. Amato.** (2019) Assessing the comparability of different DNA extraction and amplification methods in gut microbial community profiling. *Access Microbiology.* 1(7): e000060.

45. Hale V.L., C.L. Tan, K. Niu, Y. Yang, Q. Zhang, R. Knight, **K.R. Amato**. (2019) Gut microbiota in wild and captive Guizhou snub-nosed monkeys, Rhinopithecus brelichi. *American Journal of Primatology.* 81(10-11): e22989.

44. **Amato, K.R.,** T. Jeyakumar, H. Poinar, P. Gros. (2019) Shifting climates, shifting foods, shifting diseases: Microbial perspectives on human evolution. *Bioessays.* 41(10): 1900034.

43. **Amato, K.R.,** C.F. Maurice, K. Guillemin, T. Giles-Vernick. (2019) Multi-disciplinary in microbiome research: A challenge and opportunity to rethink causation, variability, and scale. *BioEssays.* 41(10): 1900007.

42. Gomez, A., A.K. Sharma, E.K. Mallott†, K.J. Petrzelkova, C.A. Jost Robinson, C.J. Yeoman, F. Carbonero, B. Pafco, J.M. Rothman, A. Ulanov, K. Vlckova, **K.R. Amato**, S.L. Schnorr, N.J. Dominy, D. Modry, A. Todd, M. Torralba, K.E. Nelson, M.B. Burns, R. Blekhman, M. Remis, R.M. Stumpf, B.A. Wilson, H.R. Gaskins, P.A. Garber, B.A. White, S.R. Leigh. (2019) Plasticity in the human gut microbiome defies evolutionary constraints. *mSphere*. 4: e00271-19.

41. **Amato, K.R.*** (2019). Missing links: The role of primates in understanding the human microbiome. *mSystems.* 4: ee00165-19.

40. Dhakan, D.B., A. Maji, A.K. Sharma, R. Saxena, J. Pulikkan, T. Grace, A. Gomez, J. Scaria, **K.R. Amato**, V.K. Sharma. (2019) The unique composition of Indian gut microbiome, gene catalogue, and associated faecal metabolome deciphered using multi-omics approaches. *GigaScience.* 8(3). doi: 10.1093/gigascience/giz004

39. **Amato, K.R.*,** J. Sanders, S.J. Song, M. Nute, J. Metcalf, L.R. Thompson, J.T. Morton, A. Amir, V. McKenzie, G. Humphrey, G. Gogul, J. Gaffney, A. Baden, G. Britton, F. Cuozzo, A. Di Fiore, N. Dominy, T. Goldberg, A. Gomez, M.M. Kowalewski, R. Lewis, A. Link, M. Sauther, S. Tecot, B. White, K. Nelson, R. Stumpf, R. Knight, S. Leigh. (2019) Evolutionary trends in host physiology outweigh diet in structuring primate gut microbiomes. *ISME Journal*. 13(3): 576-587.

38. E,K. Mallott, **K.R. Amato** (2018) The microbial reproductive ecology of white-faced capuchins (*Cebus capucinus*). *American Journal of Primatology*. 165(3):576-588.

37. J. Clayton, A. Gomez, **K.R. Amato**, D. Knights, D.A. Travis, R. Blekman, R. Knight, S.R. Leigh, R. Stumpf, T. Wolf, K.E. Glander, F. Cabana, and T.J. Johnson (2018) The Gut Microbiome of Nonhuman Primates: Lessons in Ecology and Evolution. *American Journal of Primatology*. 80(6): e22867

36. E,K. Mallott, **K.R. Amato**, P.A. Garber, R.S. Malhi. (2018) Influence of fruit and invertebrate consumption on the gut microbiota of white-faced capuchins (*Cebus capucinus*). *American Journal of Physical Anthropology*. 165(3): 576-588.

35. Raulo, A., L. Ruokolainen, A. Lane, **K.R. Amato**, R. Knight, S. Leigh, R. Stumpf, B. White, K. Nelson, A. Baden, S. Tecot. (2018) Social behavior and gut microbiota in red-bellied lemurs (*Eulemur rubriventer*): In search of the role of immunity in the evolution of sociality. *Journal of Animal Ecology*. 87: 388-399. Doi: 10.1111/1365-2656.12781

34. Davenport, E.R., J.G. Sanders, S.J. Song, **K.R. Amato,** A.G. Clark, R. Knight. (2017) The human microbiome in evolution. *BMC Biology*. 15:127.

33. McKenzie, V.J., S.J. Song, F. Delsuc, T.L. Prest, A.M. Oliverio, T.M. Korpita, A. Alexiev, **K.R. Amato,** J.L. Metcalf, M. Kowalewski, N.L. Avenant, A. Link, A. Di Fiore, A. Segui-Orlando, C. Feh, L. Orlando, J.R. Mendelson, J. Sanders, R. Knight. (2017) The effects of captivity on the mammalian gut microbiome. *Integrative and Comparative Biology*. 57(4): 690-704.

32. Hale, V.R., C.L. Tan, K. Niu, Y. Yang, R. Knight, Q. Zhang, D. Cui, **K.R. Amato** (2017) Diet versus phylogeny: A comparison of gut microbiota in captive colobine monkey species. *Microbial Ecology*. 10.1007/s00248-017-1041-8

31. Springer, A., C. Fichtel, G.A. Al-Ghalith, F. Koch, **K.R. Amato**, J.B. Clayton, D. Knights, P.M. Kappeler. (2017) Patterns of seasonality and group membership characterize the gut microbiota in a longitudinal study of wild Verreaux's sifakas (*Propithecus verrreauxi*). *Ecology and Evolution*. 10.1002/ece3.3148

30. **Amato, K.R.***, S. Van Belle, A. Di Fiore, A. Estrada, R.M. Stumpf, B. White, K.E. Nelson, R. Knight, S.R. Leigh 2017). Patterns in gut microbiota similarity associated with degree of sociality among sex classes of a Neotropical primate. *Microbial Ecology*. 74(1): 250-258. doi:10.1007/s00248-017-0938-6

29. **Amato, K.R.***, A. Ulanov, K.S. Ju, P.A. Garber. (2017) Metabolomic data suggest regulation of black howler monkey (*Alouatta pigra*) diet composition at the molecular level. *American Journal of Primatology*. 79(4): 1-10.

28. Estrada, A., P.A. Garber, A.B. Rylands, C. Roos, E. Fernandez-Duqe, A. Di Fiore, K.A. Isola Nekaris, V. Nijman, E.W. Heymann, J.E. Lambert, F. Rovero, C. Barelli, J.M. Setchell, T.R. Gillespie, R.A. Mittermeier, L.V. Arregoitia, M. de Guinea, S. Gouveia, R. Dobrovolski, S. Shanee, N. Shanee, S.A. Boyle, A. Fuentes, K.C. MacKinnon, **K.R. Amato**, A.L.S. Meyer, S. Wich, R.W. Sussman, R. Pan, I. Kone, B. Li. (2017). Impending extinction crisis of the world's primates: why primates matter. *Science Advances*. 3(1): e1600946.

27. **Amato, K.R.*** (2017). An Introduction to Microbiome Analysis for Human Biology Applications. *American Journal of Human Biology*. 29(1): e22931. Doi: 10.1002/ajhb.22931

26. Hale, V.L., C.L. Tan, K. Niu, Y. Yan, D. Cui, H. Zhao, R. Knight, and **K.R. Amato.** (2016) Effects of field conditions on fecal microbiota. *Journal of Microbiological Methods*.

25. **Amato, K.R**.*, J.L. Metcalf, S.J. Song, V.L. Hale, J. Clayton, G. Ackermann, G. Humphrey, K. Niu, D. Cui, H.Zhao, M.D. Schrenzel, C. Tan, R. Knight, J. Braun. (2016). Using the gut microbiota as a novel tool for examining colobine primate GI health. *Global Ecology and Conservation*. 7: 225-237.

24. Stumpf, R.M., A. Gomez, **K.R. Amato**, C.J. Yeoman, J.D. Polk, B.A. Wilson, K.E. Nelson, B.A. White, S.R. Leigh. (2016) Microbiomes, metagenomics, and primate conservation: New strategies, tools, and applications. *Biological Conservation*. 199:56-66.

23. Bennett G., M. Malone, M.L. Sauther, F.P. Cuozzo, B. White, K.E. Nelson, R.M. Stumpf, R. Knight, S.R. Leigh, **K.R. Amato***. (2016) Host age, social group and habitat type influence the gut microbiota of wild, ring-tailed lemurs (*Lemur catta*). *American Journal of Primatology*. 78(8): 883-892. Doi: 10.1002/ajp.22555

22. Song, S.J. A. Amir, J.L. Metcalf, **K.R. Amato**, Z.Z. Xu, G. Humphrey, R. Knight. (2016) Preservation methods differ in fecal microbiome stability, affecting suitability for field studies. *mSystems*. 1(3) doi: 10.1128/mSystems.00021-16

21. Gomez, A., Petrzelkova, K.J., Burns, M.B., Yeoman, C.J., **Amato, K.R.**, Vlckova, K., Modry, D., Todd, A., Jost Robinson, C.A., Remins, M.J., Torralba, M.G., Morton, E., Umana, J.D., Carbonero, F., Gaskins, H.R., Nelson, K.E., Wilson, B.A., Stumpf, R.M., White, B.A., Leigh, S.R., Blekhman, R. (2016) Gut microbiome of coexisting BaAka pygmies and Bantu reflects gradients of traditional subsistence patterns. *Cell*. doi: http://dx.doi.org/10.1016/j.celrep.2016.02.013

20. **Amato, K.R.*** (2016) Incorporating the gut microbiota into models of human and non-human primate ecology and evolution. *Yearbook of Physical Anthropology*. 159: 196-215. DOI: 10.1002/ajpa.22908

19. **Amato, K.R.***, R. Martinez-Mota, N. Righini, M. Raguet-Schofield, F.P. Corcione, E. Marini, G. Humphrey, G. Gogul, J. Gaffney[7], E. Lovelace, L. Williams, A. Luong, M.G. Dominguez-Bello, R.M. Stumpf, B. White, K. Nelson, R. Knight, S.R. Leigh. (2016). Phylogenetic and ecological factors impact the gut microbiota of two Neotropical primate species. *Oecologia*. 180(3): 717-733. doi: 10.1007/s00442-015-3507-z

18. **Amato, K.R.***, C. J. Yeoman, C. Schmitt, G. Cerda, J.D. Cramer, M.E. Berg Miller, A. Gomez, T. Turner, B.A. Wilson, R. M. Stumpf, K.E. Nelson, B.A. White, R. Knight, S.R. Leigh. (2015). Variable responses of human and non-human primate gut microbiota to a Western diet. *Microbiome*. 3(53).

17. Hale, V., C.L. Tan, R. Knight, **K.R. Amato**. (2015). Effect of preservation method on spider monkey (*Ateles geoffroyi*) fecal microbiota over 8 weeks. *Journal of Microbiological Methods*. 113: 16-26. doi:10.1016/j.mimet.2015.03.021

16. **Amato, K.R.***, S.R. Leigh, A.D. Kent, R. Mackie, C.J. Yeoman, R.M. Stumpf, B. A. Wilson, K.E. Nelson, B.A. White, P.A. Garber. (2015). The gut microbiota appears to compensate for seasonal diet variation in the wild black howler monkey. (*Alouatta pigra*). *Microbial Ecology*. 69(2): 434-443.

15. **Amato, K.R.***, S.R. Leigh, A.D. Kent, R. Mackie, C.J. Yeoman, R.M. Stumpf, B.A. Wilson, K.E. Nelson, B.A. White, P.A. Garber. (2014). The role of gut microbes in satisfying the demands of adult and juvenile wild, black howler monkeys (*Alouatta pigra*). *American Journal of Physical Anthropology*. 155(4): 652-664. DOI: 10.1002/ajpa.22621

14. **Amato, K.R.*** and P.A. Garber. (2014). Nutrition and foraging strategies of the black howler monkey (*Alouatta pigra*) in Palenque National Park, Mexico. *American Journal of Primatology*. 76(8): 774-787. doi: 10.1002/ajp.22268

13. **Amato, K.R.*** (2013). Co-evolution in context: The importance of studying gut microbiomes in wild animals. *Microbiome Science and Medicine*. 1:10-29. doi: 10.2478/micsm-2013-0002.

12. **Amato, K.R.***, S. Van Belle, B. Wilkinson. (2013). A comparison of scan and focal sampling for the description of wild primate activity, diet, and intragroup spatial relationships. Folia Primatologica. 84: 87-101.

11. **Amato, K.R.***, C.J. Yeoman, A. Kent, N. Righini, F. Carbonero, A. Estrada, H.R. Gaskins, R. Stumpf, S. Yildirim, M. Torralba, M. Gillis, B. Wilson, K. Nelson, B. White, S.R. Leigh. (2013). Habitat degradation impacts black howler monkey (*Alouatta pigra*) gastrointestinal microbes. *The ISME Journal*. 7: 1344-1353. doi:10.1038/ismej.2013.16.

10. Nakamura, N., **Amato, K.R.**, Estrada, A.E., Garber, P.A., Mackie, R.I., and Gaskins, H.R. (2011). Analysis of the hydrogenotrophic microbiota of wild and captive howler monkeys (*Alouatta pigra*). *American Journal of Primatology*. 73: 909-919.

9. **Amato, K.R.** and A.E. Estrada. (2010). Seed dispersal patterns in two closely related howler monkey species (*Alouatta palliata* and *A. pigra*): A preliminary report of differences in fruit consumption, traveling behavior, and associated dung beetle assemblages. *Neotropical Primates*. 17(2): 59-66.

8. **Amato, K.R.**, S.L. Emel, C.A. Lindgren, K.M. Sullan, P.R. Wright and J.J. Gilbert. (2008). Covering behavior of two co-occurring sea urchins in Discovery Bay, Jamaica: Differences in amount of covering and selection of covering material. *Bulletin of Marine Science*. 82(2): 255-261.

7. **Amato, K.R.**, D.D. Onen, S.L. Emel, and C.H. May. (2006). Comparison of foraging behavior between howler monkeys, spider monkeys, and squirrel monkeys. *Dartmouth Undergraduate Journal of Science*. 9:1, 28-31.

Book Chapters and Encyclopedia Entries

6. **Amato, K.R**., J.B. Clayton, V.L. Hale. (in press). The colobine gut microbiota: New perspectives on the nutrition and health of a specialized subfamily of primates. In. I. Matsuda, C. Grueter, J. Teichroeb, eds. T*he Colobines: Natural History, Behaviour and Ecological Diversity*. Cambridge University Press

5. Righini, N. and **Amato, K.R.** (2017) Platyrrhine Diet. In Encyclopedia of Animal Cognition and Behavior. J. Vonk and T. Schackelford, eds. Springer.

4. **Amato, K.R.** (2017) Diets and Nutrition. In International Encyclopedia of Primatology. A. Fuentes, ed. Wiley-Blackwell.

3. **Amato, K.R.*** and N. Righini. (2015). The howler monkey as a model for exploring host-gut microbiota interactions in primates. In: M. Kowalewski, P.A. Garber, L. Cortés-Ortiz, B. Urbani, and D. Youlatos, eds. Howler Monkeys: Adaptive radiation, systematics and morphology. Springer, New York. 229-258.

2. **Amato, K.R.**, B. Martin, A. Pope, C. Theiling, K. Landwehr, J. Petersen, B. Ickes, J. Houser, Y. Yin, B. Hannon, R. Sparks. (2012). Spatially explicit modeling of productivity in Pool 5 of the Mississippi River. In: J. Westervelt and G. Cohen, editors. Ecologist-Developed Spatially-Explicit Dynamic Landscape Models. Springer, New York: 151-170.

Op-Eds

1. Maurice, C., **K.R. Amato**, J. Zylberberg, G. Schlau-Cohen. (2019) Some simple policy changes to support scientist-parents. *University Affairs.* https://www.universityaffairs.ca/opinion/in-my-opinion/some-simple-policy-changes-to-support-scientist-parents/

WORK NOW IN PROGRESS

I currently have several papers in preparation. These include three papers comparing gut microbiome composition in populations of baboons, vervets, and marmosets that consume either a wild diet or human-influenced diets. I will ultimately complete a comparative analysis of the effect of high-fat, low-fiber diets on the gut microbiomes of humans and non-human primates using these datasets as well as data currently being generated for several human populations. I am also about to submit paper examining the effect of seasonal diet changes on the fecal metabolome of black howler monkeys and linking patterns in the fecal metabolome to patterns in diet and the gut microbiome. I also have a paper in preparation examining the effects of diet, season, and social group on gut microbiome composition and functional potential of common marmosets in Brazil. Another paper compares the effect of dietary niche versus phylogenetic relationships on gut microbiome composition and function of sympatric Neotropical primates. I have a large ongoing project with Martin Kowalewski examining the gut microbiomes of black and gold howler monkeys in Argentina. The next paper that I am currently working on for submission integrates data describing gut microbiome composition and function (SCFA production) with data describing howler energy balance (urinary C-peptide) across habitats and seasons with the goal of understanding the extent to which microbial functions help buffer hosts against energetic challenges. I am currently completing a review exploring potential mechanisms of interaction between the gut microbiome and host endocrine and immune functions during pregnancy. Simultaneously, I have been collecting samples together with collaborators to examine the effect of pregnancy on the gut microbiome across global populations. I am finalizing a paper comparing the effect of different primate gut microbiomes on the physiology of conventionalized germ-free mice with the goal of informing our understanding of microbial contributions to primate evolution. Finally, I am analyzing deep shotgun sequencing data generated from black howler monkeys that were sampled longitudinally to ask a variety of questions about microbial function across seasons as well as microbial evolution within hosts.

PROFESSIONAL TALKS

Invited Talks

Panel member at 'Transdisciplinary Approaches for Excellence', Annual Impact of Science Conference, AESIS, hosted from Cape Town, South Africa
**virtual due to COVID-19

Meet-the-Expert speaker at World Microbe Forum
**virtual due to COVID-19

Symposium speaker at World Microbe Forum

Seminar for the Institute for Policy Research, Northwestern University
**virtual due to COVID-19

Seminar for Microbiome Centers Consortium Seminar Series
**virtual due to COVID-19

Speaker, Gencomu 4th Student Congress, Turkey.
**virtual due to COVID-19

Speaker, 2nd European Association of Zoos and Aquaria 2021 Nutrition Conference
**virtual due to COVID-19

Seminar at Penn State University, Department of Biology
**virtual due to COVID-19

Seminar at Oregon State University, Center for Genome Research and Biocomputing
**virtual due to COVID-19

Speaker, 2nd Annual Microbiome Meeting at Cold Spring Harbor Laboratories. Cold Spring Harbor Laboratories, NY.
**virtual due to COVID-19

Symposium speaker at ISME 18, Cape Town, South Africa.
**declined due to conflicting seminar

Plenary Speaker, Comparative Nutrition Society 2020. Salt Lake City, UT.
**virtual due to COVID-19

Symposium speaker at the Joint Meeting of the International Primatological Society and SLAPrim. Quito, Ecuador.
** postponed due to COVID-19

Symposium speaker at the Joint Meeting of the International Primatological Society and SLAPrim. Quito, Ecuador.
** postponed due to COVID-19

Participant, Faculty Roundtable on Intellectual Humility: Exploring the Mysteries of Existence, from Microbes to the Cosmos, The Veritas Forum

Speaker, Fermentology Mini-Seminars, North Carolina State, Department of Applied Ecology
**virtual due to COVID-19

Speaker, Summer Journal Club on Anthropological Genetics, University of Utah, Department of Anthropology
**virtual due to COVID-19

Track Hub Speaker, ASM Microbe 2020. Chicago, IL.
**postponed due to COVID-19

Speaker, 40th Blankanese Conference on Evolutionary Medicine. Hamburg, Germany.
**postponed due to COVID-19

Seminar at Clemson University, Department of Biological Sciences

Seminar at Yale University, Department of Anthropology

Guest lectures in Primate Behavior and Evolutionary Medicine at Dartmouth College, Department of Anthropology

Seminar at 3rd Lembersky Conference in Human Evolutionary Studies: Advances in Primate Nutritional Ecology, Health, and Energetics, Rutgers University

Contributor, 'Cultures of Fermentation', Wenner-Gren Foundation Symposium. Sintra, Portugal.

Speaker, 'Beyond the standard: Non-model vertebrates in biomedicine'. EMBO Workshop, Berlin, Germany.

Speaker, 'Microbiome Madness', University of Minnesota, Microbe and Plant Genetics Institute.

Symposium Chair and Speaker, 'The Primate Microbiome', Annual Meeting of the American Society of Primatology. Madison, WI.

Speaker, Annual Sociality and Health in Primates (SoHaPi) group meeting. Gottingen, Germany.

Speaker, 3rd Annual Animal-Microbe Symbioses Gordon Research Conference, Mount Snow, VT.

Symposium presentation at the 88th Annual Meeting of the American Association of Physical Anthropologists. Cleveland, OH.

Keynote speaker, 4th Annual MIT-Harvard Microbiome Symposium. Boston, MA.

Speaker, 1st Annual CMI International Microbiome Meeting. San Diego, CA.

Invited contributor, 'Irreversible Species Interactions', Santa Fe Institute on Ecological Evolution. Santa Fe, NM.
**declined due to previous NSF grant review commitment

Seminar at Feinberg School of Medicine, Northwestern University.

Seminar at Lincoln Park Zoo, Chicago.

Seminar at Loyola University, Department of Biology.

Seminar at the University of Arizona, School of Anthropology.

Virtual seminar at the Universidad Veracruzana, Xalapa, Veracruz, Mexico.

Symposium presentation at the 4th Annual Meeting of the International Society of Evolutionary Medicine and Public Health. Park City, UT, USA.

Seminar at M.D. Anderson Center for Comparative Medicine, Bastrop, TX.

Panelist in 'Interdisciplinary Approach', Network for Advancing and Evaluating the Societal Impact of Science Impact of Science Conference. Ottawa, Ontario, Canada.

Seminar in 'Evolution and Social Science' Colloquium at the University of Missouri, Department of Anthropology.

Seminar at the University of Oregon, Department of Biology, Department of Anthropology.

Seminar at the University of Notre Dame, Department of Biological Sciences.

Seminar at Benedictine University, Department of Biology.

Seminar at Duke University, Department of Evolutionary Anthropology.

Seminar at East Carolina University, Department of Biology.

Seminar for The Center on Social Disparities and Health at the Institute for Policy Research (Cells to Society), Northwestern University.

Speaker, American Society of Microbiology Microbe Conference. New Orleans, LA, USA.

Symposium presentation at the 86th Annual Meeting of the American Association of Physical Anthropologists. New Orleans, LA, USA.

Speaker, Early Life Determinants of Later Life Health and Well-being: The Microbiome and Epigenetics as Biological Mechanisms conference. Madison, WI, USA.

Speaker, Computational Research Day, Northwestern University.

Speaker, Conference on Gut and Intestinal Function. Chicago, IL, USA.

Symposium presentation at the joint meeting of the International Primatological Society and the American Society of Primatologists. Chicago, IL, USA.

Seminar at the Lincoln Park Zoo, Chicago.

Speaker, 2nd Annual Meeting of the International Society for Evolution, Medicine, and Public Health. Durham, NC, USA.

Speaker, Office of Research Development, Northwestern University.

Seminar at University of New Mexico, Department of Biology.

Seminar at University of Illinios at Urbana-Champaign, Department of Anthropology.

Speaker, AT&T High Technology Day. Co-sponsored by National Geographic. Chicago, IL, USA.

Seminar at Indiana University, Center for the Integrative Study of Animal Behavior.

Speaker, Early Career Scientists Symposium, University of Michigan.

Seminar at University of California Davis, Department of Neurobiology, Physiology, and Behavior.

Seminar at University of Connecticut, Department of Molecular and Cell Biology.

Seminar at University of Texas San Antonio, Department of Anthropology.

Seminar at Northwestern University, Department of Anthropology.

Speaker, TEDx Jackson Hole.

Seminar at Harvard University, Department of Human Evolutionary Biology.

Seminar at Stony Brook University, Department of Anthropology.

Speaker, National Geographic Live! Washington, D.C.

Speaker, National Geographic Young Explorers Workshop, National Geographic Headquarters, Washington, D.C.

Speaker, National Geographic Young Explorers Workshop, Harvard University, Boston, MA.

Speaker, National Geographic Young Explorers Workshop, University of Washington, Seattle, WA.

Other Talks

Mallott, E.K. and K.R. Amato (2020) Workshop on *Gut microbiome data analysis.* of the International Primatological Society and SLAPrim. Quito, Ecuador.
**postponed one year due to COVID-19

Amato, K.R., S. Kuthyar, P. Pradhan, D. Carba, J. Borja, T.W. McDade, C.W. Kuzawa. (2019). Early life environments predict gut microbiome composition of adult women in Cebu, Philippines. Poster at the 89th **A**nnual Meeting of the American Association of Physical Anthropologists. Cleveland, OH, USA. (in symposium 'Life History and the Gut Microbiome co-chaired by K.R. Amato and A. Lu)
**Cancelled due to COVID-19

Leigh, S.R., D. McDonald, N.J. Dominy, T. Goldberg, J.E. Lambert, L. Swedell, J.L. Metcalf, A. Gomez, G.A.O. Britton, R.M. Stumpf, R. Knight, E.K. Mallott, K.R. Amato. (2019). High Variability and decoupling from phylogenetic effects characterize the human microbiome. Talk at the 88th Annual Meeting of the American Association of Physical Anthropologists. Cleveland, OH, USA.

Amato, K.R., N. Righini, E.K. Mallott, R. Martinez-Mota. (2018) Interactions between bacteria and parasites in the GI tract of wild black howler monkeys (*Alouatta pigra*). Talk at the 87th Annual Meeting of the American Association of Physical Anthropologists. Austin, TX, USA.

Amato, K.R., J. Sanders, S.J. Song, M. Nute, J.L. Metcalf, L.R. Thompson, J.T. Morton, A. Amir, V. McKenzie, G. Humphrey, G. Gogul, J. Gaffney, A. Baden, G. Britton, F. Cuozzo, A. Di Fiore, N. Dominy, T. Goldberg, A. Gomez, M. Kowalewski, R. Lewis, A. Link, M. Sauther, S. Tecot, B.A. White, K. Nelson, R. Stumpf, R. Knight, S.R. Leigh. (2017). Host physiology limits gut

microbiota convergence in response to diet specialization. Poster at Gordon Research Conference on Host-Microbe Interactions. Mount Snow, VT, USA.

Amato, K.R., S. Van Belle, A. Di Fiore, A. Estrada, R. Stumpf, B. White, K.E. Nelson, R. Knight, S.R. Leigh. (2016) The impact of kinship and social contact on the gut microbiota of wild, black howler monkeys (*Alouatta pigra*). Poster at the 85th Annual Meeting of the American Association of Physical Anthropologists. Atlanta, GA, USA.

Amato, K.R. (2016) Gut Check: What's all the hype about the human microbiome? Community presentation at the Skokie Public Library. Skokie, IL, USA.

Amato, K.R., M. Raguet-Schofield, N. Righini, R. Martinez-Mota, R. Knight, R. Stumpf, K.E. Nelson, B.A. White, S.R. Leigh. (2015). Determinants of the gut microbiota of Mesoamerican howler monkeys (*Alouatta pigra* and *A. palliata*). Poster at the 84th Annual Meeting of the American Association of Physical Anthropologists. St. Louis, MO, USA.

Amato, K.R., C.J. Yeoman, G. Cerda, C. Schmitt, J.D. Cramer, M.E. Berg-Miller, A. Gomez, T. Turner, B.A. Wilson, R. M. Stumpf, K.E. Nelson, B.A. White, R. Knight, S.R. Leigh. (2015). The human and non-human primate gut microbiota react differently to a Western diet. Poster at the Keystone Symposium on Molecular and Cellular Biology: Gut microbiota modulation of host physiology: The search for mechanism. Keystone, CO.

Amato, K.R., K.S. Ju, A. Ulanov, P.A. Garber. (2014). Black howler monkeys (*Alouatta pigra*) at Palenque National Park, Mexico target lipid metabolites when foraging. Invited symposium presentation at the 37th Annual Meeting of the American Society of Primatologists. Decatur, GA.

Amato, K.R., M. Kowalewski, A. Di Fiore, A. Link, S. Cassalett, R.M. Stumpf, K.E. Nelson, B.A. White, R. Knight, S.R. Leigh. (2014). Diet or phylogeny?: The gut microbiota of leaf-eating primates. Poster at the 15th International Symposium on Microbial Ecology. Seoul, Korea.

Amato, K.R., S.R. Leigh, M. Kowalewski, R.M. Stumpf, K.E. Nelson, B.A. White, R. Knight .(2014). The gut microbiota of leaf-eating primates: Implications for ecology and evolution. Presentation at the 25th Congress of the International Primatological Society. Hanoi, Vietnam.

Amato, K.R. and P.A. Garber. (2014). An ateline foraging strategy: Nutritional intake of the black howler monkey (*Alouatta pigra)* in Palenque National Park, Mexico. Presentation at the 83rd Annual Meeting of the American Association of Physical Anthropologists. Calgary, Alberta, Canada.

Leigh, S.R., K.R. Amato, A.D. Kent, C.J. Yeoman, M.Torralba, M.Gillis, B.A. Wilson, K.E. Nelson, A. Gomez, B.A. White, R.M. Stumpf. (2014). Comparative perspectives on primate microbiomes. Presentation at the 83rd Annual Meeting of the American Association of Physical Anthropologists. Calgary, Alberta, Canada.

Amato, K.R., C.J. Yeoman, G. Cerda, A. Jasinska, J.D. Cramer, M.E. Berg-Miller, A. Gomez, M. Torralba, M. Gillis, T. Turner, B.A. Wilson, R. M. Stumpf, K.E. Nelson, B.A. White, S.R. Leigh. (2014). Host phylogeny and diet impact human and non-human primate gut microbiota. Poster at the Keystone Symposium on Molecular and Cellular Biology: Exploiting and Understanding Chemical Biotransformations in the Human Microbiome. Big Sky, MT.

Amato, K.R., S.R. Leigh, A. Kent, C.J. Yeoman, A. Estrada, R.M. Stumpf, M. Torralba, M. Gillus, B.A. Wilson, K.E. Nelson, B. White, P.A. Garber. (2013). Age and sex differences in the behavior,

diet, and gut microbial communities of wild black howler monkeys (*Alouatta pigra*). Presentation at the 82nd Annual Meeting of the American Association of Physical Anthropologists. Knoxville, TN.

Amato, K.R. and P.A. Garber. (2012). Behavioral strategies for meeting nutritional demands across seasons and life history stages in the Mexican black howler monkey (*Alouatta pigra*). Presentation at the Midwest Primate Interest Group Meeting. Northern Illinois University, DeKalb, IL.

Amato, K.R., C.J. Yeoman, N. Righini, A. Kent, F. Carbonero, A. Estrada, H.R. Gaskins, R.M. Stumpf, S. Yildirim, K.E. Nelson, M. Torralba, M. Gillus, S.R. Leigh. (2012). Spatial and temporal patterns in Mexican black howler (*Alouatta pigra*) gut microbial community composition. Presentation at the 24th Congress of the International Primatological Society. Cancun, Mexico.

Amato, K.R., C.J. Yeoman, N. Righini, A. Kent, F. Carbonero, A. Estrada, H.R. Gaskins, R.M. Stumpf, S. Yildirim, K.E. Nelson, M. Torralba, M. Gillus, S.R. Leigh. (2012). Spatial and temporal variation in the gut microbiome of wild, black howler monkeys (*Alouatta pigra*). Presentation at the 97th Annual Meeting of the Ecological Society of America. Portland, OR.

Amato, K.R., C.J. Yeoman, N. Righini, A. Kent, A. Estrada, R.M. Stumpf, K.E. Nelson, M. Torralba, M. Gillus, S.R. Leigh. (2011). The influence of habitat on Mexican black howler (*Alouatta pigra*) gut microbial community composition. Presentation at the 34th Meeting of the American Society of Primatologists. Austin, TX.

Amato, K.R., C.J. Yeoman, N. Righini, A. Kent, A. Estrada, D. Munoz, R.M. Stumpf, B. White, K.E. Nelson, M. Torralba, M. Gillus, S.R. Leigh. (2011). Gastrointestinal microbial community composition and habitat structure in howler monkeys (*Alouatta pigra*). Presentation at the 80th Annual Meeting of the American Association of Physical Primatologists. Minneapolis, Minnesota.

Amato, K.R. (2011) La ecologia y la nutricion del mono aullador negro en el Parque Nacional Palenque. Presentation to the Comision Nacional de Areas Naturales Protegidas. Palenque National Park, Chiapas, Mexico.

Amato, K.R., A.D. Kent, R.I. Mackie, A. Estrada, P.A. Garber. (2010). The gut microbes and foraging behavior of wild, black howler monkeys (*Alouatta pigra*) in Palenque National Park, Mexico. Poster at 13th International Symposium on Microbial Ecology, Seattle, Washington.

Amato, K., B. Martin, A. Pope, B. Hannon, C. Theiling, B.Ickes, J. Houser, R. Sparks (2009). Spatially Explicit carbon Cycling in the Mississippi River. Poster at ERDC Conference, Memphis, Tennessee.

Amato, K.R. (2009). Age and sex-based differences in the foraging behavior of black howler monkeys (*Alouatta pigra*) in Palenque National Park, Mexico. Presentation at the Midwest Primate Interest Group Meeting. Grand Valley State University, Allendale, MI.

Amato, K.R., Estrada, A.E. (2009). A preliminary comparison of seed dispersal in two howler monkey species (*Alouatta palliata* and *Alouatta pigra*). Poster at Planet U Conference, University of Illinois, Champaign-Urbana, IL.

Amato, K.R., Estrada, A.E. (2008). A preliminary comparison of seed dispersal in two howler monkey species (*Alouatta palliata* and *Alouatta pigra*). Poster at the Midwest Primate Interest Group Meeting, University of Notre Dame, South Bend, IN.

PEER REVIEW AND RELATED ACTIVITIES

Editorial Board Member, *Folia Primatologica*	2020-present
Associate Editor, *Microbiome* (Impact Factor: 10.903)	2016-present
Guest Editor, Molecular Ecology	2020-present
Guest Editor, Frontiers in Microbiology	2020-present
Guest Editor, American Journal of Primatology	2018-2019

Journals include: American Journal of Physical Anthropology, American Journal of Primatology, Applied and Environmental Microbiology, Biological Conservation, Conservation Physiology, Current Biology, Ecology and the Natural Environment, Environmental Microbiology and Environmental Microbiology Reports, FEMS Microbiology, Frontiers in Ecology and Evolution, Frontiers in Microbiology, Integrative and Comparative Biology, International Journal of Primatology, International Journal of Tropical Biology, ISME J, Mammal Review, Microbiology, Microbiome, Molecular Ecology, mBio, mSystems, Nature Human Behavior, Nutrition and Metabolism, Oecologia, PeerJ, PLoS One, PNAS, Primates, Royal Society Open Science, Science, Science Advances, Scientific Reports

Organizations include (ad hoc): Austrian Science Fund, Czech Science Foundation, European Research Council, European Science Foundation, ETH Zurich Research Council, Fulbright Foundation, German Academic Exchange Service (DAAD), Graduate Women in Science, Institut Pasteur, Israel Science Foundation, Leakey Foundation, National Institute of Health, National Science Foundation, Primate Conservation International, University of Nebraska Food for Health Collaboration Initiative, Wellcome Trust/DBT India Alliance

Organizations include (panel): NSF, NIH

MAJOR CONSULTANCIES IN PUBLIC AND PRIVATE SECTOR

CIFAR Humans and the Microbiome Public Health Curriculum Development Committee	2021

PROFESSIONAL AFFILIATIONS AND SERVICE

Affiliations
American Society for Microbiology
American Society of Primatologists
American Association of Physical Anthropologists
International Primatological Society
International Society for Microbial Ecology
International Society for Evolutionary Medicine and Public Health

Service

President, Midwest Primate Interest Group	2017-present
Member, International Society of Primatology Research Committee	2019-present
Program Committee, Int. Soc. for Evol. Medicine and Public Health	2018

OTHER MATTERS RELATED TO RESEARCH AND PUBLICATION

Popular Press Coverage

Heid, M. 2021. Can we learn to live with germs again? *The New York Times.* *https://www.nytimes.com/2021/04/23/opinion/covid-germs-health.html*

Kaplan, M. 2021. Spoiled Rotten: The taste for fermented food goes back a long way. *The Economist. https://www.economist.com/science-and-technology/2021/03/23/the-taste-for-fermented-food-goes-back-a-long-way*

Dunn, R. and M. Sanchez. 2021. Delicious: The evolution of flavor and how it made us human. Princeton: Princeton University Press.

Yong, E. 2016. I contain multitudes: The microbes within us and a grander view of life. New York: Ecco.

TEACHING AND ADVISING

Teaching
**indicates new course that I developed*

ANTH 490 Introduction to Microbiome Analysis * March 2016 - present
Northwestern University Evanston, IL

Serve as sole instructor for graduate course on microbiome-based bioinformatics. Course includes a data analysis project and weekly discussion of primary literature. Students learn to use the QIIME2 and HUMANn2 pipelines for microbiome sequence data analysis. They are also introduced to R for statistics. They are exposed to and analysis perspectives that cross microbiome fields.

ANTH 101 Perspectives on Primates* March 2017-present
Northwestern University Evanston, IL

Serve as sole instructor for freshman writing seminar that explores the ways in which primates are viewed and integrated into different aspects of human life. General topics range from questions regarding what it means to be human to racism and feminism to primate portrayals in the media and impacts on conservation. Course is strictly discussion-based and includes 5 small writing assignments, two major papers, and a written final exam.

ANTH 490 Primate Diversity* September 2016-present
Northwestern University Evanston, IL

Serve as sole instructor for graduate seminar that reviews the primate phylogeny and provides an introduction to research in primate behavior and ecology. Course includes two short papers and one final paper, in addition to weekly discussions of the primary literature. writing seminar that explores and implications for human health. Course included a one exam, weekly discussion of primary literature, and a final paper. Students an understanding of ecological and evolutionary theories relevant for explaining variation across the primate phylogeny and an appreciation of how studies of non-human primates impact our perspectives on human physiology and behavior.

ANTH 306 Evolution of Life Histories September 2016-present
Northwestern University Evanston, IL

Serve as sole instructor for undergraduate course on human life history. Course includes a series of short reaction papers in response to primary literature as well as a midterm and a final exam. Students develop an understanding of the utility of life history theory for explaining aspects of human development and behavior from an evolutionary perspective.

ANTH 359 The Human Microbiome and Health* March 2016 -present

Northwestern University Evanston, IL

Serve as sole instructor for undergraduate course on microbiome research and implications for human health. Course includes a one exam, weekly discussion of primary literature, and a final paper. Students develop an understanding of how the microbes of the skin, airway, mouth, urogenital tract, and gut interact with humans. Final paper encourages students to integrate their understanding of human biology and health with new microbial perspectives and to reflect on the role of anthropology in exploring effects on global health.

ANTH 390 Primate Behavior and Ecology* March 2016 - present
Northwestern University Evanston, IL

Serve as sole instructor for undergraduate course in primate behavior. Course includes a written project, three exams, and weekly discussion of primary literature. Students develop an understanding of primate biodiversity and are exposed to theories behind primate feeding ecology, social organization and cognition, among other topics.

COURSERA Gut Check: Exploring Your Microbiome* October 2014, April 2015
University of Colorado Boulder Boulder, CO

Developed a massive, open, online course designed to introduce students to the human gut microbiome. Course included an introduction to microbes and the evolving technologies we use to study them as well as an overview of current knowledge and advancements in gut microbiome research in the areas of nutrition, disease, health and behavior. Target audience was the general public, although high school level biology was assumed.

ANTH 3000 Primate Behavior January 2014-May 2014
University of Colorado Boulder Boulder, CO

Served as sole instructor for an upper-level undergraduate course in primate behavior. Course included two written projects and three exams. Students developed an understanding of primate biodiversity and were exposed to theories behind primate feeding ecology, social organization and cognition, among other topics.

Instructor, Primate Behavior and Ecology* December 2013-January 2014
Maderas Rainforest Conservancy Ometepe Island, Nicaragua

Developed a field primatology course that includes lectures, discussions, field exercises, and independent student projects. Course stresses hands-on, inquiry-based learning and scientific communication. Students are required to design and execute field projects in small groups, write and revise project proposals and final reports, and present their findings orally.

Attended ten hours of teaching workshops, reviewed teaching literature, reviewed professor performance in an undergraduate lecture, and gave a guest lecture that was critiqued by the class professor.

Teaching Assistant, Behavioral Ecology August-December 2011
University of Illinois at Urbana-Champaign Champaign-Urbana, IL

Gave class lectures, led class discussions and provided feedback on research proposals written by both undergraduate and graduate students in the class.

Undergraduate Teaching Assistant, Honors Cell Biology 2004-2007
Dartmouth College Hanover, NH

Acted as a resource for freshman in specific biology classes. Assisted graduate teaching assistant with laboratory preparation and clean-up and assisted freshmen with techniques during laboratory portion of class.

Undergraduate Teaching Assistant, Physiological Ecology 2004-2007
Dartmouth College Hanover, NH

Acted as a resource for freshman in specific biology classes. Assisted graduate teaching assistant with laboratory preparation and clean-up and assisted freshmen with techniques during laboratory portion of class.

Independent Studies
At Northwestern, I have taught 6 independent studies in anthropology (ANTH 399), 3 in environmental sciences (ENVR_SCI 399), and one in biology (BIOL 399). I have also taught two biology tutorials (BIOL 398) and one integrated science program research course (INTG_SCI 398).

Advising
CIFAR Azrieli Global Scholars Leadership and Mentorship Training May 2017, May 2018
Northwestern Faculty Workshop for Research Mentors March 2017

Students
Graduate - Primary Advisor
Melissa Manus (Ph.D)
Paula Maia (Ph.D)
Tabor Whitney (Ph.D.)
Kim McCabe (Ph.D., co-advised with Thom McDade)

Graduate - Committee Member
Alyssa Bader (University of Illinois at Urbana-Champaign, Ph.D. 2019)
Julianna Perez (Northwestern University, Ph.D. 2021)
Carson Black (Central Washington University, M.Sc. 2021)
Lotte Jensen (McGill University, Ph.D.)
Michelle Benavides (Indiana University, Ph.D.)
Sofie Semmler (Australian National University, Ph.D)
Katherine Daiy (Yale University, Ph.D.)

Dissertation Reader
Carla Wagener (Stellenbosch University, South Africa, M.Sc. 2020)

Undergraduate
Jeffrey Frankel
Tara Mittelberg
Nicolette McManus
Imogene Asa
Peter Finnegan
Ella Rubenstein
Wesley Shirola

Madelyn Moy
Soumya Jhaveri
Sean Obrochta
Melissa Romoff
Maya Davis
Esther Ubadigbo
Stephanie Torrello
Rebecca Wu

Other
Brandy Parker (Intern)
Yan Zeng (Visiting student from Sichuan Agricultural University, China)
Priyanka Pradhan (Feinberg School of Medicine, Northwestern University)
Amelia Baldwin (Intern from Oakton Community College)
Brian Cho (Intern from Oakton Community College)
Lauren Kane (Public Health Program, Feinberg School of Medicine, Northwestern University)
Amanda Gomez (NSURP Intern, University of Texas San Antonio)
Jay Dugar (Oak Park HS, CA)
Citlayi Villasenor (IBiS rotation student, Northwestern University)
Shayla Johnson (NSURP Intern, Texas State University)
Alyssa Kobus (Evanston Township High School)

DEPARTMENT, COLLEGE, UNIVERSITY SERVICE

Executive Committee Member, Northwestern Institute on Complex Systems	2021-present
'Chicago' Data Science Networking Group co-Leader, Northwestern University	2019-present
Northwestern Anthropology Department Colloquium co-Coordinator	2016-2020
Northwestern Anthropology Department Executive Committee	2016
Symposium Coordinator, Grad Students in Ecol and Evol Bio, UIUC	2011-2012
Dartmouth Class of 2007 Newsletter Editor	2007-2017

COMMUNITY WORK

TriCEM Darwin Day Roadshow Workshop Presenter	2021
Beye School STEM Pen Pal	2020-present
Expand Your Horizons Workshop Presenter	2020-present
Futures Unlimited Workshop Presenter, Oakton Community College	2019-present
Adults' Night Out at the Zoo Presenter, Lincoln Park Zoo	2019
New Trier High School Career Day Presenter	2019
New Trier High School Science Lecture	2012, 2015
National Geographic Learning Elementary School Presenter	2012-2013
Josephinum High School Science Lecture	2013
Chicago Public Schools High School Science Lecture	2012
Outreach Coordinator, Grad Students in Ecol and Evol Bio, UIUC	2009-2010