Kenneth L. Chiou

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Education

2017 **Ph.D.**, Anthropology, Washington University.

2012 **M.A.**, Anthropology, Washington University.

2010 **B.A. with Honors**, Anthropology, New York University.

Academic Appointments

2017 **Postdoctoral Research Associate**, Department of Psychology, University of Washington.

Publications

* = equal author contributions

In press **Chiou, K.L.**, Blair, M.E. Modeling niches and mapping distributions: progress and promise of ecological niche models for primate research. In C.A. Shaffer, F.L. Dolins, J.R. Hickey, L.M. Porter, N.P. Nibbelink (Eds.), *GPS and GIS for Primatologists: A Practical Guide to Spatial Analysis*, Cambridge University Press.

2018 **Chiou, K.L.***, Bergey, C.M.* Methylation-based enrichment facilitates low-cost, noninvasive genomic scale sequencing of populations from feces. *Scientific Reports*, 8, 1975.

2017 Melin, A.D., **Chiou, K.L.**, Walco, E.R., Bergstrom, M.L., Kawamura, S., Fedigan, L.M. Trichromacy increases fruit feeding rates of wild capuchins (*Cebus capucinus imitator*). *Proceedings of the National Academy of Sciences of the United States of America*, 114, 10402-10407.

2017 Lima, M.G.M., Buckner, J.C., Silva, J.S., Aleixo, A., Martins, A.B., Boubli, J.P., Link, A., Farias, I.P., da Silva, M.N., Rhe, F., Queiroz, H., **Chiou, K.L.**, Di Fiore, A., Alfaro, M.E., Lynch Alfaro, J.W. Capuchin monkey biogeography: understanding *Sapajus* Pleistocene range expansion and the current sympatry between *Cebus* and *Sapajus*. *Journal of Biogeography*, 44, 810-820.

2012 Lynch Alfaro, J.W., Boubli, J.P., Olson, L.E., Di Fiore, A., Wilson, B., Gutiérrez-Espeleta, G.A., **Chiou, K.L.**, Schulte, M., Neitzel, S., Ross, V., Schwochow, D., Nguyen, M., Farias, I., Janson, C., Alfaro, M.E. Explosive Pleistocene range expansion leads to widespread Amazonian sympatry between robust and gracile capuchin monkeys. *Journal of Biogeography*, 39, 272-288.

2011 **Chiou, K.L.**, Pozzi L., Lynch Alfaro, J.W., Di Fiore, A. Pleistocene diversification of living squirrel monkeys (*Saimiri* spp.) inferred from complete mitochondrial genome sequences. *Molecular Phylogenetics and Evolution*, 59, 736-745.

Conference Papers and Published Abstracts

2017 Melin, A.D., **Chiou, K.L.**, Walco, E.R., Kawamura, S., Fedigan, L.M. Red-green colour vision increases fruit intake rates of wild capuchins (*Cebus capucinus imitator*). Annual meeting of the Canadian Association for Physical Anthropology 2017. Edmonton, Alberta.

2016 **Chiou, K.L.**, Bergey, C.M. An inexpensive methylation-based enrichment method enables genomic-scale population-level genotyping of animals from their feces. Joint meeting of the International Primatological Society and the American Society of Primatologists 2016. Chicago, Illinois.

2016 Di Fiore, A., **Chiou, K.L.**, Chevett, M., Overstreet, R., Igoe, T. Ethoinformatics II: developing open-source software and digital data services for primatology. Joint meeting of the International Primatological Society and the American Society of Primatologists 2016. Chicago, Illinois.

2016 **Chiou, K.L.**, Di Fiore, A., Overstreet, R., Chevett, M., Igoe, T. Ethoinformatics I: developing a community-informed standard vocabulary and data model for primatology. Joint meeting of the International Primatological Society and the American Society of Primatologists 2016. Chicago, Illinois.

2016 Walco, E.R., **Chiou, K.L.**, Kawamura, S., Fedigan, L.M., Melin, A.D. Color vision and age affect fruit foraging rates of wild white-faced capuchins (*Cebus capucinus*) in Sector Santa Rosa. Joint meeting of the International Primatological Society and the American Society of Primatologists 2016. Chicago, Illinois.

2016 Di Fiore, A., **Chiou, K.L.**, Chevett, M., Overstreet, R., Igoe, T. Ethoinformatics II: developing open-source digital data services for behavioral field research. *American Journal of Physical Anthropology*, 159(Suppl. 62), 130-131.

2016 **Chiou, K.L.**, Di Fiore, A., Overstreet, R., Chevett, M., Igoe, T. Ethoinformatics I: developing a standard vocabulary and data model for behavioral field research. *American Journal of Physical Anthropology*, 159(Suppl. 62), 115-116.

2015 Walco, E.R., **Chiou, K.L.**, Melin, A.D. Juvenile foraging efficiency in white-faced capuchins (*Cebus capucinus*): assessing the impact of color vision. Annual meeting of the Midwestern Primate Interest Group 2015. St. Louis, Missouri.

2013 **Chiou, K.L.** A pilot description and categorization of Kinda baboon vocalizations. *American Journal of Physical Anthropology*, 150(Suppl. 56), 98.

2013 Weyher, A.H., **Chiou, K.L.** Adult Kinda baboon (*Papio kindae*) behavior: preliminary results from a two year study. *American Journal of Physical Anthropology*, 150(Suppl. 56), 289.

2010 **Chiou, K.L.**, Hodgson, J.A., Pozzi, L., Di Fiore, A. Complete mitochondrial DNA sequences lend insight into the evolutionary history and biogeography of Central American squirrel monkeys. *American Journal of Physical Anthropology*, 141(Suppl. 50), 80-81.

2009 **Chiou, K.L.** Determining the home range of a mantled howler monkey (*Alouatta palliata*) group of Isla de Ometepe, Nicaragua. *Inquiry: A Journal of Undergraduate Research*, 13, 187.

Grants and Awards

2017-present **NIH T32 Genetic Approaches to Aging Training Grant, University of Washington**.

2016-2017 **Dissertation Fellowship, Washington University**.

2016 **NGS Discovery Project Grand Prize, NGX Bio** (with Christina Bergey). "Whole-genome sequencing from noninvasive samples." $5,000.

2014-2016 **General Research Grant, The Leakey Foundation**. "Population genomics of a baboon hybrid zone in Zambia." $13,270.

2013-2016 **Building Community and Capacity for Data-Intensive Research (BCC-SBE/EHR), National Science Foundation** (with Anthony Di Fiore, Tom Igoe, and Jane Phillips-Conroy). "Ethoinformatics: developing data services and a standard 'etho-grammar' for behavioral research." $474,512 ($121,909 to Washington University).

2013-2016 **Doctoral Dissertation Improvement Grant, National Science Foundation**. "Population genomics of a baboon hybrid zone in Zambia." $24,138.

2013 **Summer Research Award, Washington University**. "Baboon hybridization at the crossroads of behavior, ecology, and evolution." $4,700.

2012 **Summer Research Award, Washington University**. "Species-specific signaling and recognition in a baboon contact zone." $5,300.

2011 **Graduate Research Travel Award, National Science Foundation**. Travel award to participate in summer research with the Kafue National Park Baboon Research Project in Chunga, Kafue National Park, Zambia. $1,000.

2010-2015 **Graduate Research Fellowship, National Science Foundation**.

2010 **Conference Grant, New York University**. Travel grant for 79th annual meeting of the American Association of Physical Anthropologists, Albuquerque, NM. $450.

2009 **Young Explorers Grant, National Geographic Society**. "Fecal analysis of ovarian sex steroid hormones of lowland woolly monkeys (*Lagothrix poeppigii*) in Yasuní National Park, Ecuador." $2,702.

2009 **Collegiate Research Scholar Grant, New York University**. "Fecal analysis of ovarian profiles." $2,000.

2008 **Barnet and Phyllis Liberman Research Scholar Grant, New York University**. "Phylogeny and phylogeography of Central and South American squirrel monkeys." $1,900.

2008 **College of Arts & Science Parents Research Scholar Grant, New York University**. "Strategies for survival: an analysis of behavioral defense mechanisms among sympatric primate populations in Costa Rica." $2,000.

Research Activities

2017-present **Functional genomics of high-altitude adaptation in geladas**, University of Washington. With Noah Snyder-Mackler.

2017-present **Social influences on the epigenomic landscape of the aging nonhuman primate brain**, University of Washington. With Noah Snyder-Mackler and Daniel Promislow.

2013-2017 **Population genomics of a baboon hybrid zone in Zambia**, Washington University: Ph.D. Dissertation. Advisor Jane Phillips-Conroy.

2013-2017 **Ethoinformatics: developing data services for behavioral research**, Washington University. With Anthony Di Fiore, Tom Igoe, and Jane Phillips-Conroy.

2012-present **Behavior and social organization of Kinda baboons, *Papio kindae***, Washington University. With Anna Weyher.

2011-2015 **Ecological niche modeling of Central American squirrel monkeys, *Saimiri oerstedii***, Washington University. With Mary Blair.

2012 **Comparative acoustics and vocal recognition of Kinda (*Papio kindae*) and gray-footed chacma (*Papio ursinus griseipes*) baboons of Kafue National Park, Zambia**, Washington University.

2011-2012 **Zambian baboon capture and release project**, Kafue National Park, Zambia: Team Member.

2011-2012 **The Kinda baboon (*Papio kindae*) gut microbiome**, Jeffrey Gordon Lab, Center for Genome Sciences & Systems Biology, Washington University: Visiting Researcher.

2009-2010 **"Wired monkeys" project: developing physical computing products for wildlife biology**, New York University: Team Member.

2009-2010 **The phylogenetic and phylogeographic history of squirrel monkeys, genus *Saimiri***, New York University: B.A. Thesis. Advisor Anthony Di Fiore.

2009-2010 **Proyecto Primates**, Tiputini Biodiversity Station, Ecuador: Team Member.

2008-2010 **Intern supervisor**, Molecular Primatology Laboratory, New York University.

2009 **Reproductive endocrinology of female lowland woolly monkeys, *Lagothrix poeppigii***, New York University.

2009 **Population genetics of Zambian baboons, genus *Papio***, Molecular Primatology Laboratory, New York University: Research Assistant.

2008-2009 **Population genetics of white-bellied spider monkeys, *Ateles belzebuth*, and lowland woolly monkeys, *Lagothrix poeppigii***, Molecular Primatology Laboratory, New York University: Research Assistant.

2008 **Patterns of home range use in mantled howler monkeys, *Alouatta palliata***, Ometepe Biological Field Station, Nicaragua: Field School Student.

Media Coverage

2017 Brown, K.B. "Poop May Be the Key to Studying the Most Elusive Animals on Earth", *Gizmodo*. Gawker Media. 17 Feb. 2017.

Teaching Experience

Spring 2016 **Darwin and Doctors: Evolutionary Medicine and Health**, Washington University: Teaching Assistant.

Fall 2015 **Introduction to Human Evolution**, Washington University: Teaching Assistant.

Spring 2013 **Behavioral Research at the St. Louis Zoo**, Washington University: Teaching Assistant.

Fall 2012 **Principles of Anatomy and Development**, Washington University: Teaching Assistant.

Spring 2012 **Public Health Research and Practice**, Washington University: Teaching Assistant.

Fall 2011 **Anthropology and Public Health**, Washington University: Teaching Assistant.

University Service

2012-2013 **Graduate Council**, Washington University: Graduate Student Representative.

2009-2010 **Anthropology Undergraduate Student Association**, New York University: President.

2008-2009 **Anthropology Undergraduate Student Association**, New York University: Vice-President.

Professional Activities and Service

Organizer 2015 National Science Foundation Ethoinformatics Working Group Meeting, University of Texas at Austin · 2013 National Science Foundation Ethoinformatics Working Group Meeting, Olin Library, Washington University.

Reviewer *American Journal of Physical Anthropology* · *American Journal of Primatology* · *Molecular Phylogenetics and Evolution.*

Member American Association of Physical Anthropologists · International Primatological Society · Animal Behavior Society · Lambda Alpha.

Skills

Tech Perl, Python, Unix shell, sed/awk, R, JavaScript, HTML, PHP, PostgreSQL, MySQL, CouchDB, RDF/SPARQL, QGIS, ArcGIS, NetLogo.

Foreign Languages Spanish (intermediate), Mandarin Chinese (speaking: fluent, writing: basic).

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