

Kristine G. Beaty, Ph.D.

Laboratory Coordinator
Department of Anthropology
University of Kansas
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Education

Ph.D. in Anthropology | May 2017 | University of Kansas

Dissertation title: *Forced Migration and Population Expansion: The Genetic Story of the Garifuna*

Advisor: Michael H. Crawford, Ph.D.

M.A. in Anthropology | December 2009 | University of Kansas

Advisor: Michael H. Crawford, Ph.D.

B.A. in Anthropology | December 2002 | University of Missouri

B.S. in Biology | December 2002 | University of Missouri

A.A. in General Arts | May 1999 | Penn Valley Community College

Professional Appointments

Laboratory Coordinator | 2021-present | Department of Anthropology, University of Kansas

Postdoctoral Research Associate | 2019-2021 | Laboratory of Molecular Anthropology and Microbiome Research, University of Oklahoma

Lecturer | 2017-2018 | Department of Anthropology, University of Kansas

Publications

Refereed Journal Articles:

KG Beaty, MJ Mosher, MH Crawford, PE Melton (2016) Paternal genetic structure in contemporary Mennonite communities from the American Midwest. *Human Biology*, 88(2):95-108.

MIO Lugo, ML Munoz, G Perez-Ramirez, **KG Beaty**, M Lopez-Armenta, J Cervini-Silva, M Moreno-Galeana, AM Meza, E Ramos, MH Crawford, A Romano-Pacheco (2016) Genetic

affiliation of prehispanic and contemporary Mayas through maternal lineage. *Human Biology*, 88(2):136-167.

MH Crawford and **KG Beaty** (2013) DNA fingerprints in Anthropological Genetics: Past, Present and Future. *Investigative Genetics*, 4:23.

Book Chapters:

MH Crawford, C Phillips-Krawczak, **KG Beaty**, N Boaz (2021) Migration of Garifuna: Evolutionary Success Story. Ed. L Munoz and MH Crawford. Oxford University Press.

ML Munoz, MIO Lugo, GP Ramirez, **KG Beaty**, AM Meza, MH Crawford (2021) Mitochondrial DNA analysis and pre-Hispanic Maya migrations: languages, and climate influence. Ed. L Munoz and MH Crawford. Oxford University Press.

MH Crawford, S Alden, R David, **KG Beaty** (2021) Unangan (Aleut) Migrations: Causes and Consequences. Ed. L Munoz and MH Crawford. Oxford University Press.

KG Beaty (2012) Migration, assimilation, and admixture: genes of a Scot? Chapter 14, In: Causes and Consequences of Human Migration: An Evolutionary Perspective. Ed. MH Crawford and BC Campbell. Cambridge University Press.

Recent Research

Quantifying and Qualifying the Influence of Standard Laboratory Procedures on Aged, Degraded, and/or Low Copy Number DNA | 2019 - 2021
Postdoctoral research associate working on a NIH funded grant with Dr. Brian Kemp and Dr. Cara Monroe (University of Oklahoma).

Bear Paw Trade in 19th Century Chinese Communities in the American West | 2019-2021
A project with Dr. Brian Kemp (University of Oklahoma) and Dr. Ryan Kennedy (University of New Orleans) identifying bear species found in archaeological excavations from three Chinese diaspora sites in California and Oregon.

The Garifuna Diaspora | 2014 - 2018
Collaboration with the Universidad de Costa Rica, the Universidad Catolica, Honduras, examining the population history of the Garifuna communities on the Honduran coast through uniparental markers.

Migration in the Aleutian Islands | 2015-2018
Graduate research assistant (2015) for a project with National Geographic, examining the migration of Aleuts using genome wide array data.

Conference Presentations

Podium Presentations:

KG Beaty, B Bingham, U DeSilva, MF Flores, C Monroe, JL Barta, BM Kemp (2020) Where, oh where, has the DNA gone? Presented at the American Academy of Forensic Sciences Meeting, Anaheim, CA.

BM Kemp, **KG Beaty**, B Bingham, U DeSilva, MF Flores, C Monroe, JL Barta (2020) Influence of DNA extraction methods on the quantity and quality of retained genetic material. Presented at the American Academy of Forensic Sciences Meeting, Anaheim, CA.

Poster Presentations:

CE Barrett, J Tackney, L Norman, **KG Beaty**, D O'Rourke, J Raff (2021) Ancient Mitochondrial DNA Diversity and Stable Isotopes from the Western Aleutians. Presented at the 90th Annual Meeting of the American Association of Physical Anthropologists.

KG Beaty, E Lenci Jr., A Leventhal, MV Arellano, C Nijmeh, R Cambra, C Monroe (2019) Grave goods, mortuary practices, and ancient DNA at the Yukisma Mound in Central California. Presented at the American Society of Human Genetics Meeting, Houston, TX.

JM Muskrat, TN Marriage, **K Beaty**, L Sykora, S Alden, C Barrett, M Crawford, D O'Rourke, and J Raff (2019) Estimation of archaic hominin haplotype frequencies in contemporary Aleuts. Presented at the 88th annual meeting of the American Association of Physical Anthropologists, Cleveland, OH.

SD Alden, **KG Beaty**, C Barrett, J Tackney, MH Crawford, Dennis O'Rourke, and J Raff (2019) Genetic Structure of the Unangan Population of the Aleutian Islands. Presented at the 46th annual meeting of the Alaska Anthropological Association, Nome, AK.

KG Beaty, E-F Herrera-Paz, N Baldi-Salas, N Bracci, M Matamoros, MH Crawford, and R Roy (2017) Y STR Variation in Six Garífuna Villages on the Honduran Coast. Presented at the 86th meeting of the American Association of Physical Anthropologists, New Orleans, LA.

MH Crawford, SD Alden, R David, and **KG Beaty**. Genetic structure of populations of the Aleutian Archipelago based on 750,000 SNPs (2017). Presented at the 86th meeting of the American Association of Physical Anthropologists, New Orleans, LA.

N Bracci, **KG Beaty**, E Herrera-Paz, N Baldi, MH Crawford, R Roy. Haplotype data for 27 Y-STR loci from four subpopulations of the Garifuna (2016). Presented at the Northeastern Association of Forensic Scientists meeting, Atlantic City, New Jersey.

KG Beaty, NF Baldi NF, E-F Herrera Paz, C Phillips-Krawczak, MG Carpenter, MH Crawford. Migration and Expansion: Maternal Markers of the Garifuna (2015). Presented at the 84th Annual Meeting of the American Association of Physical Anthropologists, St. Louis, MO.

PE Melton, **KG Beaty**, MJ Mosher, MH Crawford. Paternal genetic structure in contemporary Mennonite communities from the American Midwest (2015). Presented at the 84th Annual Meeting of the American Association of Physical Anthropologists, St. Louis, MO.

KG Beaty, PE Melton, MJ Mosher, MH Crawford. Population structure in five Mennonite communities (2013). Presented at the 63rd meeting of the American Society of Human Genetics, Boston, MA.

MH Crawford, **KG Beaty**, C Krawczak, NT Boaz, RJ Mitchell. Genetic structure of island Carib populations (2013). Presented at the 83rd annual meeting of the American Association of Physical Anthropologists, Calgary, Alberta, CANADA.

MH Crawford, L Novikova, **KG Beaty**, L Stheno-Bittel, D Robbins, Biological markers and late adult autoimmune form of diabetes (LADA) in European Americans of Kansas City (2013). Podium presentation at the 38th annual meeting of the Human Biology Association, Knoxville, TN.

KG Beaty, DL Phillips, M Henneberg, MH Crawford. Maternal marks of admixture in Cape Coloreds of South Africa (2012). Presented at the 81st meeting of the American Association of Physical Anthropologists, Portland, OR.

T Parrish, AE Justice, SM Johnson, **KG Beaty**, CP Phillips, P Williams, MH Crawford. Development of a novel multiplex assay for major Y haplogroups assignment (2011). Presented at the 61st meeting of the International Conference of Human Genetics, Montreal, CANADA.

KG Beaty. Scottish Identity in an American Melting Pot: Insights from mtDNA and the Y-chromosome (2010). Presented at the Human Migration Conference, University of Kansas, Lawrence, KS.

KG Beaty and ML Mealey. Finding the Scot in the Scottish-American: Examination of ethnic identity through the Y-chromosome (2009). Presented at the 78th annual meeting of the American Association of Physical Anthropologists, Chicago, IL.

ML Mealey-Ferrara, **KG Beaty**, MH Crawford. Scottish clan mating, marriage and migration customs: a study of Scottish-American identity and mitochondrial lineages (2007). Presented at the 32nd annual meeting of the Human Biological Association, Philadelphia, PA.

Invited Presentations

KG Beaty Migration, assimilation and admixture: genes of a Scot? (2014). Invited podium presentation for the Human Migration Lecture Series at the University of Kansas, Lawrence, KS.

KG Beaty. Migration, assimilation and identity: Genes of the American Scots (2011). Presented at the Ecology and Evolutionary Biology Seminar Series, University of Kansas, Lawrence, KS.

Teaching Experience

2017-2018	Fundamentals of Physical Anthropology (lecture and online) Lecturer Department of Anthropology, University of Kansas, Lawrence, KS
2014	Anthropological Genetics Graduate Teaching Instructor Department of Anthropology, University of Kansas, Lawrence, KS
2014	Principles of Human Physiology Laboratory Lecturer Department of Ecology and Evolutionary Biology, University of Kansas, Lawrence, KS
2012-2014	Fundamentals of Physical Anthropology Graduate Teaching Instructor (Summer)

- Department of Anthropology, University of Kansas, Lawrence, KS
- 2013 **Physical Anthropology**
Adjunct Instructor
Department of Sociology and Anthropology, Washburn University,
Topeka, KS
- 2011-2013 **Principles of Human Physiology Laboratory**
Graduate Teaching Assistant
Department of Molecular Biosciences, University of Kansas, Lawrence,
KS
- 2012 **Fundamentals of Physical Anthropology**
Graduate Teaching Assistant
Continuing Education, University of Kansas, Lawrence, KS
- 2006-2010 **Fundamentals of Physical Anthropology**
Graduate Teaching Assistant
Department of Anthropology, University of Kansas, Lawrence, KS

Additional Training

- 2019 Bioinformatics Demystified course (audit) with Dr. Krithi Sankaranarayanan,
Department of Microbiology, University of Oklahoma, Norman, OK (Fall semester).
- 2019 Verogen ForenSeq Signature Prep Kit, MiSeq FGx, and Universal Analysis Software
Training and Certification, University of Oklahoma, Norman, OK (June 25th – 27th).
- 2018 KU Bioinformatics Workshop, University of Kansas, Lawrence, KS (August 15th -18th).
- 2018 Auburn Bioinformatics Bootcamp, Auburn University, Auburn, AL (June 4th -8th).
- 2015 Summer Institute in Statistics, University of Washington, Seattle, WA (July 6th -15th).
- Courses:
Introduction to R
Elements of R for Genetics and Bioinformatics
Population Genetic Data Analysis.

Academic Service

- 2019-2020 **Director of Communications / Committee Member**
University of Oklahoma Postdoctoral Association | Norman, OK
- 2019 **Referee, Human Biology**
- 2017-2018 **Co-mentor, Emerging Scholars Program**
Department of Anthropology | University of Kansas, Lawrence, KS

2009-2015	Graduate Student Mentor Department of Anthropology University of Kansas, Lawrence, KS
2011-2015	Editor, Laboratory of Biological Anthropology Newsletter Department of Anthropology University of Kansas, Lawrence, KS
2012-2014	Graduate Student Representative American Association of Anthropological Genetics (AAAG)
2010	Conference Organizer 1 st International Conference on Human Migration University of Kansas, Lawrence, Kansas
2006-2007	Co-editor, KU Anthropologists Department of Anthropology University of Kansas, Lawrence, KS
2005-2006	KU Anthropologists Committee Department of Anthropology University of Kansas, Lawrence, KS
2005-2006	Curriculum Committee Representative Graduate Students in Anthropology University of Kansas, Lawrence, KS

Professional Affiliations

2008-present	American Association of Biological Anthropologists (AAPA)
2009-present	American Association of Anthropological Genetics (AAAG)
2011-2015; 2019	American Society of Human Genetics (ASHG)
2006-2012	Human Biology Association (HBA)

STEAM Outreach and Activities

2019	Member of the Southwest Oklahoma STEM Alliance with a network of tribal, state, and public-school representatives that aim to provide access to STEM resources that promote success in school by providing activities that are based in a relevant cultural and environmental framework.
2019	How do biological anthropologists use DNA to better understand human evolution, migration, and cultural change? Presented to the students at Norman High School, Fall of 2019, Norman, OK (grades 9-12).
2019	The Case of the Missing Sacred Bison, Comanche Nation STEAM Camp volunteer aiding in forensic activities that included assisting participants in

- DNA extraction and examination of different materials under a microscope (grades K-12).
- 2019 Presented “Human Variation and Adaptation, The Concept of Race,” to Dr. Brian Kemp’s Introduction to Biological Anthropology class, Department of Anthropology, University of Oklahoma, Fall semester.
- 2012-2018 Kansas Scholastic Chess Tournament Volunteer. Volunteered as a score keeper at 4-5 chess tournaments a year, including several state chess tournaments (grades K-12).
- 2018 How to be a Biped. Interactive presentation showing the differences between quadrupedal and bipedal locomotion using casts and bones from KU collections, coloring pages of different skeletal features, and handouts created to help participants identify key differences. Lawrence Public Library, Lawrence, KS.
- 2018 New York Elementary Chess Tournament. Helped to organize volunteers, worked concessions and acted as score keeper for the first Kansas Scholastic Chess Tournament held at New York Elementary (grades K-12).
- 2017 DNA and Genealogy. A public lecture to provide information about what DNA ancestry tests can, and cannot, tell us about our history and identity. Presented at the Lawrence Public Library, Lawrence, KS.

References

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