

# Ethan Fulwood

DeBusk College of Osteopathic Medicine  
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## EDUCATION

- 2019      **PhD - Evolutionary Anthropology**  
Duke University
- 2013      **BA - Anthropology, Biological Sciences**  
University of Tennessee

## APPOINTMENTS

- 2021-      **Assistant Professor**  
Department of Anatomy  
DeBusk College of Osteopathic Medicine  
Lincoln Memorial University
- 2020-2021 **Assistant Professor**  
Kentucky College of Osteopathic Medicine  
University of Pikeville
- 2019-2020 **Postdoctoral Research Associate**  
Department of Neuroscience  
Washington University in St. Louis School of Medicine

## PUBLICATIONS

- 2021 Fulwood EF, Shan S, Winchester JM, Kirveslahti H, Ravier R, Kovalsky S, Daubechies I, Boyer DM. Insights from macroevolutionary modelling and ancestral state reconstruction into the radiation and historical dietary ecology of Lemuriformes (Primates, Mammalia). *BMC Ecology and Evolution*. 21:60
- 2021 Fulwood EF, Shan S, Winchester JM, Gao T, Kirveslahti H, Daubechies I, Boyer DM. Reconstructing dietary ecology of extinct strepsirrhines (Primates, Mammalia) with new approaches for characterizing and analyzing tooth shape: implications for lemur evolutionary origins. *Paleobiology*. In press.
- 2020 Fulwood EF. Ecometric modelling of tooth shape and precipitation gradients among lemurs on Madagascar. *Biological Journal of the Linnean Society*. 129: 26-40.
- 2016 Fulwood EF, Boyer DM, Kay RF. Stem members of Platyrrhini are distinct from catarrhines in at least one derived cranial feature. *Journal of Human Evolution* 100: 16-24.
- 2015 Fulwood EF, Wallace SC. Evidence for size dimorphism in a fossil ailurid. *Palaeontologia Electronica* 18(3) 1-6.
- 2013 Fulwood EF, Kramer A. Effect of size biases in the coefficient of variation on assessing intraspecific variability in the prosimian skeleton. *American Journal of Physical Anthropology* 152(1): 151-155.

## ABSTRACTS

- 2022 Fulwood EF, Shan S, Winchester JM, Kirveslahti H, Kovalsky S, Gao T, Daubechies I, Boyer DM. "New approaches to describing functional properties of tooth shape applied to the dietary evolution of strepsirrhine primates." Joint Meeting of the International Primatological Society and Latin American Society of Primatologists, Quito, Ecuador.

- 2021 **Fulwood EF**, Yapuncich G, Boyer DM. "Trends in North American primate ecomorphological disparity in response to climate fluctuations over the Eocene." Society of Vertebrate Paleontology (Online).
- Bradley-Conkwright MM, Anaya AD, **Fulwood EF**, Ravier R, Winchester JM, Daubechies I, Boyer DM. "An automated approach to studying the evolution of the paraconid cusp in a comprehensive sample of fossil and extant Euarchonta." Society of Vertebrate Paleontology (Online).
- 2020 **Fulwood EF**. "A Bayesian multilevel approach to the calculation of encephalization quotients." Society of Vertebrate Paleontology, Cincinnati, Ohio (Online).
- Fulwood EF**, Shan S, Winchester JM, Kirveslahti H, Gao T, Boyer DM, Daubechies I. "Dietary adaptation in lemurs, analyzed using new approaches to describing functional properties of tooth shape." American Association for Anatomy, San Diego, Calif (Cancelled).
- 2019 **Fulwood EF**. "Dental topography metrics from lemurs as ecometrics along spatial environmental gradients on Madagascar." American Association of Physical Anthropologists, Cleveland, Ohio.
- Rossillo AN, Cook RW, **Fulwood EF**. "Walking with hominins and chewing with lemurs in K-12 classrooms: Incorporating 3D digital repositories into state-specific lesson plans." American Association of Physical Anthropologists, Cleveland, Ohio.
- 2018 **Fulwood EF**. "Climate change and rates of body size evolution in North American Eocene euprimates." Society of Vertebrate Paleontology, Albuquerque, N.M.
- Fulwood EF**, Boyer DM, Bloch, J. "Insights on then systematics and paleobiology of the family Pentacodontidae from craniodental evidence". Southeastern Association of Vertebrate Paleontology, Aurora, N.C.

**Fulwood EF.** “Is Lemuriformes an adaptive radiation?” American Association of Physical Anthropologists, Austin, Texas.

2017 **Fulwood EF, Gao T, Daubechies I, Boyer DM.** “Automated segmentation of morphological structure into biologically corresponding features: Implications for systematics and ecomorphology.” American Association of Physical Anthropologists, New Orleans, La.

**Fulwood EF, Winchester JM, Gao T, Boyer DM, Daubechies I.** “New mathematical approaches to the automated segmentation of teeth.” iDigBio Digital Data in Paleontology Workshop, Berkeley, Calif.

2016 **Fulwood EF, Gunnell G, Perchalski B, Harrington A, Gonzales L, Alexander J, Bloch J, Boyer DM.** “Revised high resolution stratigraphy of the Bridger Formation in Grizzly Buttes Area of Southwest Wyoming.” Society of Vertebrate Paleontology, Salt Lake City, Utah.

**Fulwood EF.** “Using phylogenetic comparative methods and dental topography to examine the dietary history of strepsirrhine primates.” Southeast Regional Society for Integrative and Comparative Biology Meetings, Durham, N.C.

**Fulwood EF, Cunningham CW, Boyer DM, Groeneveld LF.** “Novel analyses estimating evolutionary rates using ancestral state reconstruction suggest recent stasis in the cranium of the dwarf lemur *Cheirogaleus* (Primates: Cheirogaleidae).” International Congress of Vertebrate Morphology, Washington, D.C.

**Fulwood EF.** “Biogeographic cluster analysis of Wasatchian mammals from the Red Hot Local Fauna (Mississippi, USA) and Bighorn Basin (Wyoming, USA).” Southeastern Association of Vertebrate Paleontology, Martinsville, Va.

**Fulwood EF, Boyer DM.** “Investigating dietary evolution in crown strepsirrhines using dental topography metrics and ancestral state reconstruction.” American Association of Physical Anthropologists, Atlanta, Ga.

- 2015 **Fulwood EF**, Boyer DM, Bloch, J. “A digital reconstruction of the skeleton of Middle Paleocene *Aphronorus orieli* (Pantolestidae) and paleobiological interpretations. Society of Vertebrate Paleontology, Dallas, Texas.
- Fulwood EF**, Boyer DM, Kay RF. “Ontogenetic and fossil evidence for pterion contact as a platyrrhine synapomorphy.” Osteology in the Carolinas, Greensboro, N.C.
- 2014 **Fulwood EF**, O’Meara B. “A phylogenetic approach to the evolution of anthropoid lumbar number.” American Association of Physical Anthropologists, Calgary, Alberta.
- 2013 Wallace SC, **Fulwood EF** (Presenting author). “New skeleton of *Pristinailurus bristoli* (Ailuridae: Ailurinae) suggests strong sexual dimorphism in this rare carnivoran.” Society of Vertebrate Paleontology, Los Angeles, Calif.
- Fulwood EF**, Wallace SC. “Lessons from a fossil red panda (Ailuridae: Carnivora) for interpreting the evolution of sexual dimorphism in anthropoids.” American Association of Physical Anthropologists, Knoxville, Tenn.
- 2012 **Fulwood EF**, Kramer A. “Size variability in the prosimian skeleton: Testing for the effects of locomotion.” American Association of Physical Anthropologists Conference, Portland, Ore.
- Fulwood EF**, Boyer A. “Appendicular element evenness in an avian-dominated *Tyto alba* pellet assemblage.” Geological Society of America: Southeastern Section, Asheville, N.C.

## GRANTS AND FELLOWSHIPS

2015-2018 Graduate School Summer Fellowship  
Duke University

2018 Graduate School Dissertation Domestic Travel Grant  
Duke University

**2017-2018 SMiF Undergraduate User Program Grant**

Duke University

Co-recipients - Katrina Montane, Doug Boyer

**Arts and Sciences Mentorship Grant**

Duke University

Co-recipients - Katrina Montane, Doug Boyer

**2017 East Asia Pacific Summer Institute**

National Science Foundation/Australian Academy of Science  
Monash University, Victoria, Australia

**Doris O. and Samuel P. Welles Fund**

University of California Museum of Paleontology, Berkeley

**EDUCATIONAL TRAINING**

**2020 Community Member**

Professional Development in Teaching Program  
Washington University in St. Louis

**2019 Certificate in College Teaching**

Duke University

**TEACHING**

**2021- Lincoln Memorial University**

Instructor – Medical Gross Anatomy; Human Gross Anatomy (high school dual enrollment)

**2020-2021 Kentucky College of Osteopathic Medicine**

Instructor – Gross Anatomy; Cell Biology & Developmental Microanatomy

**2019-2020 Washington University School of Medicine**

Instructor – The Human Body: Anatomy, Embryology, Imaging  
Lab assistant - Neuroscience

2014-2019 **Duke University**

TA - Gross Anatomy (Human Structure and Function), Human Body, Primate Anatomy, Introduction to Evolutionary Anthropology, Human Osteology, Human Evolution

**FIELDWORK**

2014-2016 **Wyoming**

Bighorn and Bridger Basins

2014 **Nebraska**

Ashfall Fossil Beds

2010-2013 **Tennessee/Virginia**

Gray Fossil Site, Saltville

**MEDIA OUTREACH**

2019 **K-12 lesson plan**

"Straight from the Lemur's Mouth: Exploring dietary adaptation and evolutionary relationships using lemur teeth"

2018 **Popular article**

"How a Humble Chatham County Phytosaur Crawled into History Before the Mighty *T. rex*" *IndyWeek*, May 23, 2018

2017 **Podcast**

Guest on Common Descent episode "Primates"

**MUSEUM OUTREACH**

2019 **Saint Louis Science Center**

Teen Science Café volunteer

2014-2018 **N.C. Museum of Natural Sciences**

Paleopalooza and Darwin Day outreach tables, docent

2014      **Ashfall Fossil Beds State Historic Park**  
Interpretive intern

## **PROFESSIONAL SERVICE**

### **Reviewer**

Journal of Human Evolution, Journal of Vertebrate Paleontology, Ecology and Evolution

### **Appalachian Scientists Interested in the Morphology of Vertebrates (ASIMOV)**

Organized interest group composed of researchers from Appalachian medical schools

## **UNIVERSITY SERVICE**

### **Kentucky College of Osteopathic Medicine**

Research Committee (2020-2021)

Admissions interviews

### **Washington University in St. Louis**

2020 Postdoctoral Symposium organizing committee

## **PROFESSIONAL ASSOCIATIONS**

American Association for Anatomy

American Association of Biological Anthropologists

Society for Integrative and Comparative Biology

Society of Vertebrate Paleontology