

**Ellen Miller**  
**CURRICULUM VITAE**

**Contact Information**

Department of Anthropology  
Wake Forest University  
Winston-Salem, NC 27109-7807  
Office: 336.758.5275  
Mobile: 336.473.0708  
Email: millerer@wfu.edu

**Academic Appointments**

2015-	Professor, Department of Anthropology, Wake Forest University
2015-	Adjunct Instructor, Stony Brook University
2008-2015	Associate Professor, Department of Anthropology, Wake Forest University
2006-2009	Dunn-Riley Faculty Fellow, Wake Forest University
2002-2008	Assistant Professor, Department of Anthropology, Wake Forest University

**Education**

1991-1996	Washington University, Ph.D. Anthropology
1983-1987	New York University, M.A. Anthropology
1979-1983	George Washington University, B.A. Anthropology

Thesis: Mammalian paleontology of an Old World monkey locality, Wadi Moghara, Egypt

**Courses Taught (primary instructor)**

**Introductory level:** Introduction to Biological Anthropology

**Upper division:** Human Evolution; Human Osteology (Skeletal Biology); Human Biological Diversity (Modern Human Variation); Evolution and Human Behavior.

**Other courses taught:** Vertebrate Paleontology (field course, Turkana Basin Institute), Primate Evolution; Human Growth & Development; Human Evolutionary Biology; Paleoanthropology; Forensic Anthropology.

**External Grants and Awards**

2021 Turkana Basin Institute. For research on ape and monkey evolution across the Early to Middle Miocene Boundary (\$21,480 to ERM, G.A. Russo, I. Nengo).

- 2021 Turkana Basin Institute. For investigations of Oligo-Miocene aged fossil ape and monkey localities at Nakwai and Losodok, West Turkana. Senior Collaborator (\$36,225 to J Kappelman)
- 2020 National Science Foundation, Frontiers Research in Earth Sciences (FRES) Senior Collaborator (\$2,671,455 to I. Nengo, K. Uno, C. Poulson, C. Beck, C. Feibel, G. Henkes).
- 2013 Belgian Research Action Through Interdisciplinary Networks (BRAIN-be), Senior International Collaborator, for fieldwork in the Democratic Republic of Congo (890,000 € [1.2 million USD] to T. Smith, PI).
- 2013 National Geographic Society, for research at Buluk, northern Kenya (\$23,780 to ERM and I. Nengo).
- 2013 Leakey Foundation, for research at Buluk, northern Kenya (\$19,000 to ERM)
- 2012 National Science Foundation, Senior Collaborator, for research on East African Catarrhine and Hominoid Evolution (\$750,000, PIs: K. McNulty and colleagues).
- 2009 Leakey Foundation, for work at Buluk, northern Kenya (\$17,796 to ERM)
- 2008 National Science Foundation, for work at Wadi Moghra, Egypt (\$25,360 to ERM).
- 2008 National Geographic Society, for work at Khasm El-Raqaba, Egypt (\$13,575 to ERM, GF Gunnell, WJ Sanders, AN El-Barkooky)
- 2004 National Science Foundation; for field work at Wadi Moghra and Siwa Oasis, Egypt (\$60,000; to ERM and AN El-B)
- 2003 Leakey Foundation; for field work at Buluk, northern Kenya (\$17,675 to ERM).
- 2003 Leakey Foundation; for field work at Buluk, northern Kenya (\$15,000; to ERM, returned).
- 2001 Leakey Foundation; for laboratory and museum work on the evolutionary history of sexual dimorphism in primates (\$4000; with GT Schwartz and GF Gunnell).
- 1994 National Science Foundation Dissertation Improvement Grant; for fieldwork at Wadi Moghara, Egypt (\$ 12,000; to ERM and DT Rasmussen, Advisor).
- 1994 Leakey Foundation; for museum research at Kenya National Museums, Nairobi and The Natural History Museum, London (ca. \$4000; to ERM)
- 1994 The Boise Fund; for field equipment, Wadi Moghara, Egypt (ca. \$650; to ERM)
- 1994 Sigma Xi; for fieldwork at Wadi Moghara, Egypt (\$500; to ERM)

#### **Internal Grants and Awards for Research**

- 2021 Lam Family Academic Excellence Fund, Department of Anthropology (\$14,890)
- 2019 Banks Faculty Support Fund, Wake Forest University (\$1640)
- 2014 Publication and Research Fund, Wake Forest University (\$303).
- 2013 Social, Behavioral and Economic Research Fund; Wake Forest University, for research at Buluk, northern Kenya (\$9408 to ERM).
- 2009 Presidential Grant for Biological Anthropology, Z. Smith Reynolds Library Collections Management Award, Wake Forest University; for retrospective collecting of biological anthropology and paleoanthropology monographic titles (\$2500 to Ms. C. McCallum).

- 2007 Archie Fund for the Arts and Humanities, Wake Forest University; for support of museum research on fossil material from Wadi Moghra (\$4940).
- 2006 Research Fellowship, Wake Forest University; for a student assistant at Wadi Moghra, Egypt (\$4000 to Ms. C. Nichols)
- 2005 Publication and Research Fund, Wake Forest University (\$1219).
- 2004 Dean's Discretionary Fund; Wake Forest University; for a field vehicle for use by members of the Department of Anthropology (\$30,000).
- 2002 Social and Behavioral Sciences Research Fund; Wake Forest University; for museum work in the United States and Kenya (\$9993)
- 1992 Dean's Award for Summer Research; Washington University; for fieldwork in Wyoming (\$500).

### **Internal Grants and Awards for Teaching**

- 2004 Apple Pie Professor; for demonstrated excellence in mentoring and teaching, Delta Delta Delta Sorority.
- 2004 Certificate of Faculty Appreciation, Interfraternity Council
- 2003 Apple Pie Professor; for demonstrated excellence in mentoring and teaching, Delta Delta Delta Sorority.
- 2002 Lilly Endowment Award; for preparation of a new first-year seminar (\$3000)

### **Fellowships**

- 1995-1996 Dean's Dissertation Award
- 1991-1994 University Fellowship, Washington University
- 1991 Center for the Study of Evolution and the Origin of Life (CSEOL) Fellowship, University of California, Los Angeles (returned).
- 1983-1987 University Fellowship, New York University.

### **Research Experience**

Headed paleontological expeditions to Buluk, Kenya, an early Miocene locality with a diverse fauna, including an early fossil Old World monkey, a number of ape taxa, and many other early Miocene African animals (2004, 2008-present).

Paleontology at Napudet, a middle Miocene locality in West Turkana, Kenya, to explore for fossil mammals, including early Old World monkeys and apes (co-PIs, Drs. GA Russo, IO Nengo, 2015-present).

Paleontology in Oligocene-Miocene deposits, Nakwai, West Turkana, Kenya, to explore for fossil mammals including remains of the earliest fossil monkeys and apes (PIs, Dr. DT Rasmussen, Dr. J Kappelman, 2012-present).

Headed paleontological expeditions to Wadi Moghra, Egypt, an early Miocene locality containing a diversity of animals including *Prohylobates tandyi*, an early Old World monkey (intermittent 1992-2011).

Paleontology in Middle Pleistocene deposits of southwestern Turkey, to explore for remains of *Homo erectus* (PI, Dr. J. Kappelman, June-July, 2010).

Paleontology in the Bridger & Green River Basins, Wyoming, middle Eocene sediments with a mammalian assemblage that includes a variety of adapid and omomyid primates (with Dr. GF Gunnell, intermittent 1989-2017).

Museum research, Kenya National Museums, Nairobi, direct comparisons between the Moghra mammals and a large range of early Miocene faunas from East Africa (1994, 2004-5).

Museum research, The Natural History Museum, London, detailed comparisons between the Moghra mammals and a large range of other early Miocene mammals from North Africa and Eurasia (1994, 2005).

Museum research, Bristol University, Bristol, study of the faunal material from Gebel Zelten, early Miocene, Libya. (2005).

Paleontology in Chiapas, Mexico, exploration of Eocene sediments for primates and other mammals (with Drs. I Ferresquia-Villifranca, DD Gillette and GF Gunnell (2001)

Paleontology of the Fayum Province, Egypt, late Eocene through Oligocene deposits yielding a large number of fossil mammals including a variety of early anthropoid primates (with Dr. EL Simons and others, 1992-1997).

Paleontology in the Uinta Basin, Utah, late Eocene deposits with an assemblage of fossil mammals that includes large omomyid primates (with Dr. DT Rasmussen, 1992-1993).

Paleontology in the Bighorn Basin, Wyoming, Paleocene and early Eocene deposits containing a rich variety of both archaic and modern mammals, including some of the earliest known true primates (with Dr. PD Gingerich, 1991).

Research Assistant, New York University, work in an electrophoresis laboratory concerned with the genetic relationships among a population of hybrid baboons living in the Awash area of Ethiopia (with Dr. CJ Jolly, 1984-1985).

Archeological excavation, Lake Maryuit, Egypt, Pharonic as well as Greco-Roman structures, burials and small artifacts (with Drs. Gable and el-Fakarani, 1980-1981).

Archeological excavation, Chavez Pass, Arizona, the remains of an Anazasi settlement including house structures, small artifacts and burials (with Dr. F Plog, 1977).

Archeological Field School, Kampsville, Illinois, excavation at MacCupin, a Middle Hopewell locality (Center for American Archeology, 1976).

## Previous Employment

- 2001-2002 Instructor, Department of Anthropology, University of Colorado, Boulder, CO.
- 2000-2001 Lecturer, Department of Anthropology, University of California, Los Angeles, CA.
- 1999-2000 Visiting Scholar, Department of Anthropology, University of North Carolina, Chapel Hill, NC.
- 1998-1999 Visiting Lecturer, Department of Anthropology, University of North Carolina, Chapel Hill, NC.
- 1996-1997 Staff Specialist, Duke University Primate Center, Durham, NC.
- 1994-1995 Forensic Consultant, Washington Park Cemetery, St. Louis, MO.
- 1989-1990 Assistant Preparator, Vertebrate Paleontology, Museum of Paleontology, University of Michigan, Ann Arbor, MI.

## Abstracts, Posters, and Papers Presented

- 2023 Strömberg CAE, Peppe DJ, Cote SM, Deino AL, Fox DL, Kingston JD Kinyanjui RN, Lukens WE, MacLatchy LM, Novello A, Driese SG, Garrett ND, Hillis KR, Jacobs BF, Kityo RM, Lehmann T, Manthi FK, Mbua EN, Michel LA, Miller ER, Mugume AAT, Muteti SN, Nengo IO, Oginga KO, Phelps SR, Polissar P, Rossie JB, Stevens NJ, Uno KT, McNulty KP. Early Miocene evidence of abundant C4 grasses and habitat heterogeneity in eastern Africa. Botany 2023 – One World conference Boise, Idaho July 22-26 (submitted).
- 2022 Bapana S, Uno KT, House A, Arney I, Beck CC, Grossman A, Kirera F, Liutkus-Pierce C, Miller E, Nengo I, Green DR. Heterogeneous Hydroclimate and Vegetation in the Middle Miocene East African Rift Valley, PP42D-1138 presented at 2022 Fall Meeting, *Am Geophys Un*, 12-16 Dec
- 2022 Saslaw M, Liutkus-Pierce C, Stinchcomb G, Shedroff S, Uno K, Tweedy R, Beck C, Feibel CS, Miller E, Henkes GA. Soil carbonate clumped isotope temperatures and paleoenvironmental interpretations from the Miocene of the Turkana Basin, East Africa. *Geol Soc of Amer Abstracts with Programs* v. 54, No. 5, <https://doi.org/10.1130/abs/2018RM-314044>
- 2022 Fleagle JG, Benefit B, Miller ER. Apes, monkeys, and others. *Am J Biol Anthropol Programs and Abstracts* 177, S73. <https://doi.org/10.1002/ajpa.24514>.
- 2021 Lukens WE, Peppe DJ, Deino AL, Fox DL, Beverly EJ, Miller ER. A Woodland-Savanna Mosaic in the early Middle Miocene at Buluk, Turkana Basin, Kenya. *Geol Soc Am* virtual meetings Oct 2021.
- 2021 Peppe DJ, Cote SM, Deino AL, Fox DL, Kingston JD, Kinyanjui RN, Lukens WE, MacLatchy LM, Novello A, Strömberg CAE, Driese SG, Garrett ND, Hillis K, Jacobs BF, Jenkins KEH, Kityo R, Lehmann T, Manthi FK, Mbua EN, Michel LA, Miller ER, Mugume A, Nengo IO, Oginga KO, Phelps SR, Rossie JB, Stevens NJ, Uno KT, McNulty KP. Early Miocene evidence for C4 grass-dominated habitats and vegetation heterogeneity in eastern Africa *Geol Soc Am* virtual meetings Oct 2021.

- 2020 Peppe DJ, Cote S, Deino AL, Driese SG, Fox DL, Garret ND, Hillis KR, Jabobs B, Jenkins K, Kingston J, Kinyanjui R, Lehmann T, Lukens WE, McNulty KP, MacLatchy LM, Michel LA, Miller E, Nengo I, Novello A, Going KO, Rossie JB, Lehmann T, Lukens WE, McNulty KP, MacLatchy LM, Michel LA, Miller E, Nengo I, Novello A, Oginga KO, Rossie JB, Strömberg C, Uno KT. Early Miocene evolution of C4 vegetation and open ecosystems across equatorial East Africa. *Am Geophys Un* (Dec 2020, virtual meeting).
- 2020 Peppe DJ, Cote S, Deino AL, Driese SG, Fox DL, Garret ND, Hillis KR, Jabobs B, Jenkins K, Kingston J, Kinyanjui R, Lehmann T, Lukens WE, McNulty KP, MacLatchy LM, Michel LA, Miller E, Nengo I, Novello A, Going KO, Rossie JB, Lehmann T, Lukens WE, McNulty KP, MacLatchy LM, Lauren A, Miller E, Nengo I, Novello A, Oginga KO, Rossie JB, Strömberg C, Uno KT. Early Miocene evolution of C4 vegetation and open ecosystems across equatorial East Africa. *Geol Soc Am* (Oct 2020, virtual meeting).
- 2020 Hatton K, Rasbury T, Present T, Henkes G, Saslaw M, Wooton K, Northrup P, Tappero R, Steponaitis E, Sousa F, Cox S, Hemming S, Nengo I, Russo G, Rossie J, Cote S, Miller E, Princehouse P. U-Pb Dating of Oligocene-Miocene Petrified Wood: Turkana Basin, Kenya. *Am Geophys Un* (Dec 2020, virtual meeting).
- 2020 Sanders WJ, Miller ER, Nengo I, Arney I, Semprebon G. Taxonomy and paleoecology of a remarkably diverse new proboscidean assemblage from the terminal Early Miocene site of Buluk, Kenya. *J Vert Paleontol Programs and Abstracts*, 2020, (virtual meeting, covid).
- 2020 Arney ID, Miller E, Nengo IO, Locke EM, Sanders WJ. Stable carbon isotopes of mammalian tooth enamel and paleoenvironments of the early Miocene locality of Buluk, Kenya. *Am Assoc Phys Anthropol Programs and Abstracts* 171:11.
- 2019 Fleagle JG, Benefit B, Miller E. Old World Monkeys and others. *Am Assoc Phys Anthropol Programs and Abstracts* (accepted but meetings cancelled, covid-19).
- 2019 Miller ER, Sallam H, Seiffert E, Schwartz GT, Gunnell GF. Patterns of dental emergence in early anthropoid primates from the Fayum, Egypt: implications for interpreting social behavior. Royal Belgian Institute of Natural Sciences, Brussels, Belgium *PalEuAfrica: Program and Abstracts*:32.
- 2019 Abdel Gawad M, Morlo M, Miller ER, Bastl K, El-Barkooky AN, Hamdan M, Nagel D. New amphicyonids (Mammalia, Carnivora) from Moghra, Early Miocene, Egypt, Africa. *1<sup>st</sup> Intl Symposium on Vert Paleontol, Cairo, Egypt. Sept 2019. Abstracts and Agenda*: 30
- 2019 Nishimura AC, Russo GA, Nengo I, Miller ER. Morphometric affinities of a new fossil ulna from Buluk, Kenya. *Am Assoc Phys Anthropol Programs and Abstracts*, 2019:177.
- 2018 Abdel Gawad M, Steel L, Sertich J, Miller E, El-Barkooky A, Hamdan M, Sallam H, Gunnell G. New materials for the appearance of *Crocodylus* from the Early Miocene Moghra Formation, Northern Western Desert, Egypt. *Geophys Res Abs* 2018:20. *European Geosciences Union*, April meeting, Vienna, Austria.
- 2018 Peppe DJ, Cote S, Deino A, Driese SG, Fox, DL, Kingston J, Kinyanjui R, Kityo RM, Lehmann T, Lukens WE, Jenkins K, MacLatchy LM, Manthi FK, Mbua E, McNulty KP, Michel LA, Miller ER, Mugume AAT, Nengo I, Novello A, Oginga K, Rossie JB. Adaptable apes: reconstructing habitats through space and

- time in the early Miocene of East Africa. *Am Assoc Phys Anthropol Programs and Abstracts*, 2018:204.
- 2018 Locke EM, Benefit BR, Miller ER, Nengo I. New cercopithecoid specimens from the early Miocene of Buluk, Kenya, and significance for dentognathic variation in the Victoriapithecidae. *Am Assoc Phys Anthropol Programs and Abstracts*, 2018:160.
- 2017 Peppe DJ, Deino AL, Driese SG, Fox DL, Kingston JD, Kinyanjui RN, Luken WE, Lutz JA, Michel LA, Ogonda Oginga K, Cote S, Lehmann T, MacLatchy L, McNulty KP, Miller E, Nengo I, Rossie JB. Early Miocene paleoclimate and paleoenvironments across East Africa. *Geol Soc Amer* 2017:39-5.
- 2017 Miller ER, Gunnell GF, Sallam HM, Habersetzer J, Seiffert E. Towards resolving the morphology and taxonomy of *Parapithecus fraasi* (Parapithecidae, Anthropoidea) from the Fayum Depression, Egypt. *J Vert Paleontol Programs and Abstracts*, 2017:163-164.
- 2017 Gunnell GF, Miller ER, Seiffert ER, Sallam HM, Schwartz GT. Early catarrhine dental eruption and development. *Am Assoc Phys Anthropol*: 162:S64:204.
- 2017 Lukens WE, Peppe DJ, Locke E, Miller E, Deino AL, Oginga K, Nengo I. Paleoenvironments and mammalian fauna of the early Miocene fossil site at Buluk, Kenya. *Am J Phys Anthropol*: 162:S64:268-9.
- 2016 Sileem AH, Sallam HM, Miller ER, Gunnell GF. The oldest craniodental remains of Anthracotheriidae (Mammalia, Artiodactyla) from the Paleogene of Africa. (*J Vert Paleontol*, Program and Abstracts, 2016, 224).
- 2016 Nengo IO, Benefit B, Arney I, McCrossin M, Rae T, Miller ER. A large-bodied ape canine from middle Miocene Napudet deposits in the Turkana Basin, Kenya. (*Am J Phys Anthropol* <http://meeting.physanth.org/program/2016/session09/>).
- 2016 Rae TC, Nengo IO, Currano ED, Feibel C, Fox DL, Miller ER. New palaeontological discoveries from the Middle Miocene site of Napudet, West Turkana, Kenya. *Am J Phys Anthropol* <http://meeting.physanth.org/program/2016/session09/>
- 2015 Miller ER, Bown TM, Sileem A, Sallam HM, Gunnell GF. Stratigraphic and paleoecological distribution of anthracotheres in the Fayum, Egypt. *J Vert Paleontol*:180A.
- 2015 Miller ER, Watkins RT, Nengo I. New insight into the paleoenvironment and mechanisms of taphonomic accumulation at Buluk, early Miocene, Kenya. *Am J Phys Anthropol*:226A.
- 2014 Miller ER, Gunnell GF. New fossil pangolin specimens from the Eocene and Oligocene of Egypt. *J Vert Paleontol*:188A.
- 2014 McNulty KP, MacLatchy L, Peppe DJ, Nengo IO, Manthi FK, Miller ER, Stevens NJ, Cote S, Lehmann T, Kingston J. A regional approach to East African early Miocene paleobiology. *J Vert Paleontol*:185A.
- 2014 Winkler AJ, Gunnell GF, Miller ER, Sanders WJ. El-Barkooky A, Abdel Gawad M, Gingerich PD. *Africanomys* (Rodentia: Ctenodactylinae) and a new species of Hipposideridae (Chiroptera) from the Miocene Khasm el-Raqaba locality, Eastern Desert, Egypt. *J Vert Paleontol*:256A.

- 2014 Abdel Gawad MK, Gunnell GF, Sertich JJW, Sallam HM, Miller ER, El-Barkooky AN, Hamdan MA. Reptilian fauna from the Early Miocene of Wadi Moghra, Western Desert, Egypt. *J Vert Paleontol*:77A.
- 2014 Mid-Atlantic Bioanthropology Interest Group (MABIG), “Geology and paleoenvironment of Buluk, northern Kenya”, Virginia Commonwealth University, Richmond, VA, October 2014.
- 2013 McNulty KP, MacLatchy L, Rossie JB, Peppe DJ, Deino AL, Mbua EN, Manthi FK, Nengo IO, Miller ER, Stevens NJ, Cote S, Lehmann T, Gutiérrez M. Research on East African catarrhine and hominoid evolution: results from the first year. *Am J Phys Anthropol* 58:182.
- 2013 Kato A, Tang N, Papakyrikos A, Hinde K, Miller E, Kunitatsu Y, Hirasaki E, Shimizu D, Smith TM. Molar enamel thickness in four macaque species. (*Am J Phys Anthropol*:163A.
- 2013 Tang N, Kato A, Hinde K, Miller E, Smith TM. Molar development and life history in four macaque species *Am J Phys Anthropol*:268-269A.
- 2012 Miller ER, Gunnell GF, Rosenberger AL. Toward an ecophyletic origin of anthropoids. 4<sup>th</sup> International *Geologica Belgica* Meeting 2012, Brussels, Belgium (<http://www.geologicabelgica.be>).
- 2012 Abdel Gawad MK, Miller ER, Hamdan MA, El-Barkooky AN, El-Sharkaway MA. Vertebrate and geological signatures on the construction of Moghra Formation, North Western Desert, Egypt. *J Vert Paleontol*:54A.
- 2012 Kato A, Papkyrikos A, Tang A, Hinde K, Miller E, Ohno N, Smith T. Molar enamel thickness in macaque species. Presented at the 66<sup>th</sup> Annual Meeting of the Anthropological Science of Nippon, Kanagawa, Japan, November 2<sup>nd</sup>- 4<sup>th</sup>.
- 2011 Miller ER, Gunnell GF, Clementz MT, Abdel Gawad MK, Hamdan MA. New anthracotheres (Artiodactyla) from Wadi Moghra, Egypt, and their bearing on hippopotamus phylogeny. *J. Vert. Paleontol* 30: 135A.
- 2010 Miller ER, Wood AR. Paleoenvironmental reconstruction of Buluk, early Miocene, Kenya. *J Vert Paleont* 24:135A.
- 2010 Clementz M, Miller E, El-Barkoky A, Hamdan M, Abdel Gawad M, Hassan SMA. Stable isotope evidence of semiaquatic habits and dietary niche differences for four sympatric species of anthracotheriids from Wadi Moghra, early Miocene, Egypt. *J Vert Paleont* 24:47A.
- 2010 Clementz M, Miller ER, El-Barkooky A, Hamdan M, Abdel Gawad M, Hassan Safia Mohamed Ali. Paleoenvironmental reconstruction of the Old World monkey locality; Wadi Moghra, early Miocene, Egypt. *Am J Phys Anthropol* 50:82A.
- 2010 Abdel Gawad MK, Miller ER, Hamdan MA, Ali SM, El-Sharkawi A, El-Barkooky AN. Stratigraphic distribution of fossil mammals in the Early Miocene Moghra Formation, north western desert, Egypt. *Proc 10th Int Conf Geol Arab World*, Cairo, Egypt, pp. 52-53.
- 2008 Miller ER, Gunnell GF, El-Barkooky AN. New anthracotheres (Mammalia, Artiodactyla) from Wadi Moghra, early Miocene, Egypt. *J Vert Paleont* 28:116A.
- 2006 Miller ER, El-Barkooky AN, Hamdan M, Korany M, Nichols C. Paleoenvironmental reconstruction of the mammals from Wadi Moghra, Egypt. *J Vert Paleont* 26:100A.



- 2006 Morlo M, Miller ER, Barkooby AN. Creodonts and carnivores from Wadi Moghara, Egypt. *J Vert Paleont* 26:103A.
- 2006 El-Barkooby AN, Hamdan MA, Miller E, El-Sharkawi MA, Qorani M. Geological context of the Moghara fossil vertebrates. *Proc 8th Int Conf Geol Arab World*, Cairo, Egypt, pp. 161-162.
- 2006 Miller ER, Benefit BR. Systematics of the Victoriapithecidae. *Am J Phys Anthropol Suppl* 129:131A.
- 2005 Anemone R, Grossman A, Miller ER, Watkins R. Biochronology and paleoecology of the Buluk fauna, early Miocene of northern Kenya. *J Vert Paleontol* 2005:32A.
- 2005 Miller ER, Anemone R, Grossman A, Watkins R, Kyeva M, Moru R. A new hominoid partial maxilla from Buluk, early Miocene, Kenya. *Am J Phys Anthropol Suppl* 40:152A.
- 2004 Schwartz GT, Miller ER, Gunnell GF. Developmental basis of canine dimorphism in early Eocene Notharctines. *Am J Phys Anthropol* 123:176-177A.
- 2001 Miller ER, Sanders WJ. New fossil proboscideans from Wadi Moghara, Egypt. 8th International Theriological Congress 2001, Sun City, South Africa. *Recent Advances in Studies on Elephants and other Proboscideans*, p. 97.
- 2000 Fleagle JG, Harris JH, Watkins RT, Bown TM, Miller ER. Early Miocene mammalian faunas from northern Kenya and southern Ethiopia. *J Vert Paleontol* 20: 41A.
- 2000 Gunnell GF, Miller ER, Muldoon KM. New specimens of *Copelemur* (Notharctidae, Primates) from the Wasatch Formation (early Eocene), southwestern Wyoming: Implications for North American adapiform diversity. *Am J Phys Anthropol Suppl* 30:168-169A.
- 1999 Gunnell GF, Miller ER. Omomyid primates from South Pass (middle Eocene, southwestern Wyoming): diversity, anachronism and the origin of new species. *Am J Phys Anthropol Suppl* 108:141-142A.
- 1998 Miller ER, Gunnell GF, Simons EL. Origin of Anthroidea: dental evidence and recognition of the earliest anthropoids in the fossil record. *Am J Phys Anthropol Suppl* 26:163A.
- 1998 Miller ER, Simons EL. Relationships between the mammalian fauna from Wadi Moghara, Qattara Depression, Egypt, and other early Miocene mammals. *Proc Egypt Geol Surv Cent Spec Pub* 75:547-580.
- 1997 Miller ER, Rasmussen DT, Swindler DR, Simons EL. Molar size sequence and metric variation among early Miocene cercopithecoids. *Am J Phys Anthropol Suppl* 24:169A.
- 1996 Miller ER, Simons EL. Age of the first cercopithecoid, *Prohylobates tandyi*, Wadi Moghara, Egypt. *Am J Phys Anthropol Suppl* 22:168.
- 1992 Miller ER, Gunnell, G.F. Femoral morphology of *Smilodectes mcgrewi*. *Am J Phys Anthropol Suppl* 18:123-124A.
- 1991 Gunnell GF, Miller ER. The foot of *Smilodectes mcgrewi*. *J Vert Paleontol* 11:33A.

## Book Reviews

- 2003 Miller ER. Hominoid evolution and climate change in Europe: phylogeny of the Neogene hominoid primates of Eurasia. Vol, 2. *Am J Phys Anthropol* 121(4):390-391.
- 1999 Miller ER. Too many horses or too few? *Evol Anthropol* 7(6):226-224.

## Publications

- 2023 Peppe DJ, Cote S, Deino AL, Fox DL, Kingston JD, Kinyanjui RN, Lukens WE, MacLatchy LM, Novello A, Strömberg CAE, Driese SG, Garrett ND, Hillis KR, Jacobs BF, Jenkins KEH, Kityo R, Lehmann T, Manthi FK, Mbua EN, Michel LA, Miller ER, Mugume AAT, Muteti SN, Nengo IO, Kennedy OO, Phelps SR, Polissar P, Rossie JB, Stevens NJ, Uno KT, McNulty KP. Oldest evidence of abundant C<sub>4</sub> grasses and habitat heterogeneity in eastern Africa. *Science* 380: 173–177.
- 2023 Morlo M, Nengo IO, Friscia A, Wambui W, Miller ER, Russo GA. Presence of a giant amphicyonid and other carnivores (Mammalia) from the Middle Miocene of Napudet, Kenya. *J Vert Paleontol* e2160643.  
<https://doi.org/10.1080/02724634.2022.2160643>.
- 2022 Nishamura AC, Russo GA, Nengo IO, Miller ER. Morphological affinities of a fossil ulna (KNM-WS 65401) from Buluk, Kenya. *J Hum Evol*  
<https://doi.org/10.1016/j.jhevol.2022.103177>
- 2022 Zonneveld JP, Korany M, Miller ER. Ectoparasite borings, Mesoparasite borings, and scavenging traces in early Miocene turtle and tortoise shell: Moghra Formation, Wadi Moghra, Egypt. *J Paleontol* 1-19: [doi.org/10.1017/jpa.2021.92](https://doi.org/10.1017/jpa.2021.92)
- 2021 Morlo M, Friscia A, Miller ER, Locke E, Nengo I. Systematics and paleobiology of Carnivora and Hyaenodontida from Buluk, Early Miocene, Kenya. *Acta Paleontol Pol*: [doi.org/10.4202/app.00794.2020](https://doi.org/10.4202/app.00794.2020)
- 2020 Locke EM, Benefit BR, Kimock C, Miller ER, Nengo IO. New dentognathic fossils of *Noropithecus bulukensis* (Primates, Victoriapithecidae) from the late Early Miocene of Buluk, Kenya *J Hum Evol*:148,  
[doi.org/10.1016/j.jhevol.2020.102886](https://doi.org/10.1016/j.jhevol.2020.102886)
- 2019 Morlo M, Miller ER, Bastl K, El-Barkooky AH, Hamdan M, Abdel Gawad M, Nagel D. New Amphicyonids (Mammalia, Carnivora) from Moghra, Early Miocene, Egypt. In: Bonis L. de & Werdelin L. (eds), Memorial to Stéphane Peigné: Carnivores (Hyaenodonta and Carnivora) of the Cenozoic. *Geodiversitas* 41 (21): 731-745. [doi.org/10.5252/geodiversitas2019v41a21](https://doi.org/10.5252/geodiversitas2019v41a21)
- 2019 Rasmussen DT, Friscia AR, Gutierrez M, Kappelman J, Miller ER, Muteti S, Reynoso D, Rossie JB, Spell TL, Tabor N, Gierlowski-Kordesch E, Jacobs BF, Kyongo B, Macharwas M, Muchemi F. A primitive Old World monkey from the earliest Miocene of Kenya and the evolution of cercopithecoid bilophodonty. *Proc Natl Acad Sci, USA*. [doi.org/10.1073/pnas.1815423116](https://doi.org/10.1073/pnas.1815423116)
- 2018 Gunnell GF, Boyer DM, Friscia AR, Heritage S, Manthi FK, Miller ER, Sallam HM, Simmons NB, Stevens NJ, Seiffert E. Fossil lemurs from Egypt and Kenya reveal an African origin for Madagascar's aye-aye. *Nature Comm*:  
[dx.doi.org/10.1038/s41467-018-05648-w](https://doi.org/10.1038/s41467-018-05648-w)

- 2018 Gunnell GF, Miller ER. Anthroidea: conceptual history. In: *Intl encyc biol anthropol*. Trevathan W, Cartmill M, Dufour D, Larsen C, O'Rourke D, Rosenberg K, Strier K (eds). Wiley Academic Press, pp.68-73.
- 2018 Gunnell GF, Miller ER. Anthropoid origins. In: *Intl encyc biol anthropol*. Trevathan W, Cartmill M, Dufour D, Larsen C, O'Rourke D, Rosenberg K, Strier K (eds). Wiley Academic Press, pp. 74-78.
- 2017 Nengo I, Tafforeau P, Gilbert C, Fleagle JG, Miller ER, Feibel C, Fox D, Feinberg J, Pugh K, Berruyer C, Mana S, Engle Z, Spoor F. New infant cranium from the African Miocene sheds light on ape evolution. *Nature* 548:169-174  
doi:10.1038/nature23456
- 2017 Miller ER, Gunnell GF, Seiffert E, Sallam H, Schwartz GT. Patterns of dental emergence in early anthropoid primates. *Hist Biol*:  
dx.doi.org/10.1080/08912963.2017.1294169
- 2016 Sallam HM, Sileem AH, Miller ER, Gunnell GF. Deciduous dentition and dental eruption sequence of *Bothriogenys fraasi* (Anthracotheriidae, Artiodactyla) from the Fayum, Egypt. *palaeo-electronica.org/content/2016/1595-anthracotheiidae-from-egypt*
- 2016 Sileem AH, Sallam HM, Hewaidy AGA, Miller ER, Gunnell GF. A new anthracothere (Mammalia: Artiodactyla) from the Early Oligocene of the Fayum, Egypt, and the mystery of “*Rhagatherium*” solved. *J Paleontol* 90:170-181.
- 2015 Miller ER, Rasmussen DT, Kappelman J, Friscia AR, Muteti SN, Gutierrez M. *Ptolemaia* from West Turkana, Kenya. *Bull Peabody Mus Nat Hist* 56:81-88.
- 2015 Gunnell GF, Winkler ER, Miller ER, El-Barkooky AN, Abdel Gawad M, Sander WJ, Gingerich PD. Small vertebrates from Khasm El-Raqaba, late Middle Miocene, Eastern Desert, Egypt. In: A Scientist's Legacy: Vertebrate Paleontology in the 21st Century. Kimura Y, Kobayashi Y, Flynn L, Jacobs L (eds). *Hist Biol* 28:159-171:dx.doi.org/10.1080/08912963.2015.1014354.
- 2015 Sileem AH, Sallam HM, Hewaidy AGA, Gunnell GF, Miller ER. Anthracothere (Mammalia, Artiodactyla) from the upper-most horizon of the Jebel Qatrani Formation, latest early Oligocene, Fayum Depression, Egypt. *J Egypt Paleontol* 15:1-11.
- 2014 Miller ER, Gunnell GF, Abdel Gawad M, Hamdan M, El-Barkooky AN, Clementz MT, Hassan SM. Anthracotheres from Wadi Moghra, early Miocene, Egypt. *J Paleontol* 88:967-981.
- 2014 Kato A, Tang N, Borries C, Papakyrikos A, Hinde K, Miller E, Kunimatsu Y, Hirasaki E, Shimizu D, Smith T. Intra- and Interspecific Variation in Macaque Molar Enamel Thickness. *Am J Phys Anthropol* 155:447-459.
- 2013 Miller ER, Gunnell GF. Toward an ecophyletic origin of anthropoid primates. *Geol Belgica* 16/4: 284-289.
- 2013 Geraards D, Miller ER. *Brachypotherium minor* n. sp., and other Rhinocerotidae from the Early Miocene of Buluk, Northern Kenya. *Geodiversitas* 35 (2): 359-375.
- 2010 Pickford M, Miller ER, El-Barkooky AN. Suids and sanitheres from Wadi Moghra, Egypt. *Acta Pal Pol.* 55:1-11

- 2010 Holroyd PA, Lihoreau F, Gunnell GF, Miller ER. Anthracotheriidae. In: Cenozoic mammals of Africa. L Werdelin and WJ Sanders (eds.). pp. 843-852. University of California Press, Berkeley, CA.
- 2009 Miller ER, Benefit BR, McCrossin ML, Plavcan JM, Leakey MG, El-Barkooky AN, Hamdan MA, Abdel Gawad MK, Hassan SM, Simons EL. Systematics of early and middle Miocene Old World monkeys. *J Hum Evol* 57:195–211.
- 2007 Morlo M, Miller ER, El-Barkooky AN. Creodonta and Carnivora from Wadi Moghra, Egypt. *J Vert Paleontol* 27:145-159.
- 2005 Miller ER, Gunnell GF, Martin RD. Deep time and the search for anthropoid origins. *Yrbk Phys Anthropol* 48:60-95.
- 2005 Schwartz GF, Miller ER, Gunnell GF Developmental processes, life history and canine dimorphism and primate evolution *J Hum Evol* 48:97-103.
- 2002 Sanders WJ, Miller ER. A new proboscidean fauna from the early Miocene site of Wadi Moghara, Egypt. *J Vert Paleontol* 22(2):388-404.
- 2001 Gunnell GF, Miller ER. Origin of Anthroidea: dental evidence and recognition of earliest anthropoids in the African and Asian fossil record. *Am J Phys Anthropol* 114:177-191.
- 1999 Miller ER. Faunal correlation of Wadi Moghara, Egypt -- implications for the age of *Prohylobates tandyi*. *J Hum Evol* 36:519-533.
- 1998 Miller ER, Simons EL. Relationships between the mammalian fauna from Wadi Moghara, Qattara Depression, Egypt, and the faunas of other African lower Miocene sites. *Proc Geol Surv Egypt Cenn, Spec Publ* 75:547-580.
- 1997 Miller ER, Simons EL. Dentition of *Proteopithecus sylviae*, archaic anthropoid from the Fayum, Egypt. *Proc Natl Acad Sci* 94:13760-13764.
- 1997 Simons EL, Miller ER. An upper dentition of *Aframomius dieides* (Primates) from the Fayum, Egyptian Eocene. *Proc Natl Acad Sci* 94:7993-7996.
- 1997 Miller ER, Rasmussen DT, Simons EL. Fossil storks (Ciconiidae) from the late Eocene and early Miocene of Egypt. *Ostrich* 68(1):23-26.

### **Invited Publications**

- 2022 Behrensmeyer AK, Cerling T, Fortelius M, Gathogo P, Harmand S, Martin L, Miller E, Pilbeam D, Ungar P, Wood B. Richard Erskine Leakey (1944-2022). *Evol Anthropol* 2022:1-6. DOI: 10.1002/evan.21947
- 2018 Miller ER, Rossie JR. The heyday of apes. *Natural History Magazine*. Amer Mus Nat Hist. Sep 2018:7-9.

### **Professional Invited Talks, Conferences and Workshops**

- 2022 Lamont-Doherty Earth Observatory, Columbia University, “Buluk, Kenya” Turkana Miocene Project, September 2022.
- 2018 Research into East African Catarrhine and Hominoid Evolution (REACHE), National Museums of Kenya, Sponsored by Wenner-Gren, August, 2018.
- 2018 Turkana Basin Institute, Stony Brook University, “Evolution and ecology of nyanzapithecines”, Alesi 2<sup>nd</sup> tier workshop, March, 2018.

- 2018 Turkana Basin Institute, Stony Brook University, New York, “Buluk and Nakwai”, workshop for submission of a National Science Foundation, Integrated Earth Systems grant, January, 2018.
- 2017 Symposium in Honor of the 40<sup>th</sup> Anniversary of the Duke Lemur Center, Division of Fossil Primates, American Association of Physical Anthropologists, New Orleans (co-Chair, with GF Gunnell, E Seiffert).
- 2010 Stony Brook Human Evolution Workshop IX, "The Miocene roots of the Hominin tree" Turkana Basin Institute, Turkwel Research Station, Kenya , August 2010.
- 2008 Cairo University, “Evolution of African Mammals”, January 2008, Egypt.
- 2008 Stony Brook Human Evolution Workshop IV, “Forty years of work in the Turkana Basin”, Illeret Research Station, Kenya, August 2010.
- 2007 Cercopithecoidea Analytical Working Group (CAWG), American Association of Physical Anthropologists, Philadelphia.
- 2003 Systematic Association, Trinity College, August 2003, Dublin, Ireland. “Deep time and the origin of anthropoid primates”.
- 2003 National Science Foundation conference on American-Egyptian scholarship and future research, February 2003, Cairo, Egypt. “Past and future work in the early Miocene of Egypt”.
- 1998 Egyptian Geological Survey and Mining Authority, Centennial Celebration, November, 1998, Cairo, Egypt. “Relationships between the mammalian fauna from Wadi Moghara, Qattara Depression, Egypt, and the faunas of other African lower Miocene sites”.

#### **Wake Forest Invited Talks, Conferences and Workshops**

- 2019 Wake Forest University, “Decoding messages from the past” Poteat Lecture, April 2019.
- 2018 Wake Forest University, “Meet Alesi” Board of Trustees Luncheon, February, 2018.
- 2017 Wake Forest University, “New Ideas Series”, Office of the Dean of the College, October, 2017.
- 2010 Wake Forest University, "The teacher/scholar model", new faculty orientation, August, 2010.
- 2010 Wake Forest University, "Research at Wake Forest", luncheon for new faculty, January, 2010.
- 2009 Wake Forest University, “What makes us human”, November, 2009, Alumni Club, Palm Beach, FL.
- 2009 Wake Forest University, "Thursdays at Starling", September 2009
- 2006 Lilly Foundation, workshop in Cairo, Egypt. Organizers: Drs. Neal Walls (Divinity School, Wake Forest University) and Ken Hoagland (Department of Religion, Wake Forest University).
- 2005 Department of Biology, Wake Forest University, February 2005, Winston-Salem, NC. “The evolutionary history of primate canine dimorphism”.

## Professional Service

### University

2022-present	Senate Executive Committee, Member-at-Large (elected)
2021-present	Senator, Wake Forest University (elected)
2021-present	Member, Reynolds Research Leave Committee (appointed)
2018	Faculty evaluator, internal review, Department of Education
2018	Senior Orations Committee, Judge
2017- 2021	Member, Committee on Academic Planning (CAP) (elected); including liason and representation duties to the Dean of the College's Ad Hoc Curriculum Review Committee
2016	Faculty evaluator, external review of the Office of Research and Sponsored Programs, Wake Forest University
2014-2017	Member, Teaching and Learning Committee (elected)
2010-2015	Member, Faculty Fellowship Committee
2008-2012	Senator, Wake Forest University (elected); includes 1 year on the Senate Resources Committee, 1 year on the Senate Executive Committee
2005-	Reviewer, Social, Behavioral and Economic Research Fund, Wake Forest University
2003-2004	Organized visit of Dr. Donald C. Johanson, Institute of Human Origins, of as part of the Wake Forest's Theme Year, "Fostering Dialogue: Civil Discourse in an Academic Setting".
2004-2007	Freshman Advising, Wake Forest University

### Teaching & Departmental

2007- present	Department of Anthropology, Major's Adviser
2007-2012	Department of Anthropology, authorization for transfer credit, course approval, study abroad credit, etc.
2007	Tutorial in Forensic Anthropology, towards board certification of Forensic Pathologist trainee, Wake Forest University School of Medicine
2006	Colloquia Coordinator, Department of Anthropology, Wake Forest University
2006	Participant, Creativity Forum, an initiative from the Office of Entrepreneurship and the Department of Theatre and Dance, contact: Dr. Lynn Book
2002	Development of new course, "Primate Evolutionary Biology".
2002	Development of new course, "Skin Deep: Human Biological Diversity"
2002-2008	Editor, Department of Anthropology Newsletter
2002-2007	Forensic consultant, Department of Public Archeology, Wake Forest University; Dr. Kenneth Robinson, Director.

### Selected Synergistic Activities

2022	Facilitated NSF funded research of Drs. RF Kay, P Morse (Duke University) & J Pampush (High Point University) with access to skeletal material curated in the WFU Paleoanthropology Laboratory
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- 2022 Facilitated NSF-funded research of graduate student Ms. L. Bowland (University of Arkansas) with access to skeletal material curated in the WFU Paleoanthropology Laboratory
- 2019 Speaker, Pint of Science, Wise Man Brewery, NC, Organizer, Clay Hamilton WFU, Inaugural Session, May 2019
- 2019 Science Olympiad, Event Chair, Fossils, Supervisor, Gloria Muday, March 2019
- 2019 Consultant and on-air talent for PBS “When Whales Walked: Journeys in Deep time” documentary on the evolution of elephants, filmed in part at my field site, Buluk, Kenya. Aired: June 2019.
- 2018 Interview with Wake Forest Magazine, “What I wish people knew”, Fall 2018 Issue
- 2017 Radio and print interviews on the significance of *Nyanzapithecus alesi*, a infant ape cranium from Napudet, Kenya.
- 2011 Invited contribution to Maxim Magazine's "Ask Maxim" column, September 2011.
- 2011 Facilitated cooperation between the Wake Forest University Primate Center (Dr. Jay Kaplan, Director) and the laboratory of Dr. Tanya Smith (Harvard University). Longitudinal studies involving enamel microstructure in primates of known age. January 2011.
- 2010 Helped with editing of Science Correspondent, Christopher Joyce's National Public Radio series, "The Human Edge", aired on Morning Edition, 12 July.
- 2010 Contributions to National Geographic Society Traveler Guide to Egypt, pp. 81, 119.
- 2009 Work in Egypt featured on National Geographic Society’s television program, “Wild Chronicles” program. Aired on public television, May 2009
- 2009 Facilitated cooperation between the Wake Forest University Primate Center (Dr. Jay Kaplan, Director) and the laboratory of Dr. Thure Cerling (University of Utah, National Academy of Sciences). Longitudinal isotope studies involving primates of known diet and genealogy.
- 2008 Interview, “Future Humans”, Answer Fella, *Esquire* April, 2008
- 2004 Guest speaker, “Animal Classification”, Reedemer School, 5th grade, Winston-Salem, NC.
- 2003 Contribution on African Miocene localities to the European Miocene Data base (contact: François Marchal, Université de Bordeaux).
- 2002 Forensic consultant, Winston-Salem Sheriff Department (1 case).
- 2002 Consultant on Miocene primate faunas for “Miracle Planet”, NHK Television, Japan.

## **Reviewer**

### Granting agencies

National Science Foundation, Panel Member (2010 - 2013)  
 National Science Foundation, Reviewer Biological Anthropology, 2007- present  
 National Geographic Society 2008- present  
 The Leakey Foundation, Reviewer, 2007- present

MacArthur Fellows Program, Reviewer, 2009

Journals

*American Journal of Physical Anthropology*

*Evolutionary Anthropology*

*Journal of Human Evolution*

*International Journal of Primatology*

*Molecular Phylogenetics and Evolution*

Book chapters

*Eocene Biodiversity: Unusual Occurrences and Rarely Sampled Habitats*, 2001, G.F. Gunnell (ed.). Kluwer Academic/Plenum Publishers, New York, Topics in Geobiology Series, Volume 18.

**Professional Development**

Arabic Language Training

**Professional Memberships**

American Association of Physical Anthropologists

Society of Vertebrate Paleontology

Turkana Basin Institute [www.turkanabasin.com](http://www.turkanabasin.com)

**Research Interests**

Evolutionary biology and systematics

Primate/human anatomy and evolution

Biogeography

Functional morphology