

ASHLEY S. HAMMOND

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Division of Anthropology
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ACADEMIC INTERESTS AND SPECIALIZATIONS

Paleoanthropology, functional morphology, evolutionary anatomy, ape and human evolution, pelvis, locomotion, paleo simulation, East African paleontology

PROFESSIONAL PREPARATION

2013 **Ph.D., Pathology and Anatomical Sciences**, University of Missouri
2008 **M.A., Anthropology**, Florida Atlantic University
2006 **B.A., Anthropology and Social Sciences**, Florida Atlantic University

ACADEMIC APPOINTMENTS

2018-present Assistant Curator of Biological Anthropology and Assistant Professor in Richard Gilder Graduate School (RGGS), Division of Anthropology, American Museum of Natural History (AMNH)
2017-2018 Visiting Assistant Professor, Center for Advanced Study of Human Paleobiology (CASHP), Department of Anthropology, George Washington University
2017-present Research Associate, Smithsonian Institution, Human Origins Program and Department of Anthropology
2015-2017 Postdoctoral Scientist, Center for Advanced Study of Human Paleobiology (CASHP), Department of Anthropology, George Washington University
2015-2016 Instructor, Department of Anatomy, Howard University
2013-2015 Research Instructor, Department of Anatomical Sciences, Stony Brook University

RESEARCH GRANTS

2017-2018 **American Association of Physical Anthropologists** Professional Development Grant (\$5,000), "Hominoid-like fossils from the late Oligocene of Kenya." PI: **AS Hammond**
2016-2017 **Wenner-Gren Foundation** (\$16,350), "The hominid pelvis: Testing alternative evolutionary hypotheses for the *Pan*-hominin LCA pelvis shape." PI: **AS Hammond**; Co-PIs: S Almécija, JB Smaers
2015-2016 **L.S.B. Leakey Foundation** General Research Grant (\$8,952), "Reconstructing phenotypic change in the pelvis of apes and humans." PI: **AS Hammond**; Co-PI: S Almécija
2012-2013 **National Science Foundation** (\$15,765), "DDIG: Novel 3D analysis of hip joint mobility and the evolution of locomotor abilities in Miocene hominoids" (BCS 1232393). PIs: CV Ward, **AS Hammond**
2012-2013 **Wenner-Gren Foundation** (\$3,820 accepted, \$20,000 offered), "Fossil evidence for hip joint mobility and the evolution of suspensory locomotor abilities in hominoids." PI: **AS Hammond**

2012-2013 **L.S.B. Leakey Foundation** General Research Grant (\$12,300), "Novel 3D analysis of Miocene hominoid hip joint mobility." PI: **AS Hammond**

PUBLICATIONS

*indicates student co-author

Peer-reviewed articles

- 2018 Muchlinski MN, **Hammond AS**, Deane AS, Purcell M, Hemingway HW, Hanke G, Pastor J, Garrosa M, Hartstone-Rose A. Brief communication: The *ligamentum teres femoris* in orangutans. *American Journal of Physical Anthropology*.
- 2018 **Hammond AS**, Almécija S, Libsekal Y, Rook L, Macchiarelli R. A partial *Homo* pelvis from the Early Pleistocene of Eritrea. *Journal of Human Evolution*.
- 2018 Alba DM, **Hammond AS**, Vinuesa V*, Casanovas-Vilar I. First record of a Miocene pangolin (Pholidota: Manoidea) from the Iberian Peninsula. *Journal of Vertebrate Paleontology*: e1424716.
- 2017 **Hammond AS**, Royer DF, Fleagle JG. The Omo-Kibish I pelvis. *Journal of Human Evolution* 108: 199-219.
- 2017 **Hammond AS**, Almécija S. Lower ilium evolution in apes and hominins. *Anatomical Record* (Special Issue) 300: 828-844.
- 2017 Middleton ER, Winkler ZJ*, **Hammond AS**, Plavcan JM, Ward CV. Determinants of iliac blade orientation in anthropoid primates. *Anatomical Record* (Special Issue) 300: 810-827.
- 2017 **Hammond AS**, Johnson VP*, Higham JP. Hip joint mobility in free-ranging rhesus macaques. *American Journal of Physical Anthropology* 162: 377-384.
- 2016 Claxton A*, **Hammond AS**, Romano J*, Oleinik E, DeSilva J. Virtual reconstruction of the *Australopithecus africanus* pelvis Sts 65 with implications for obstetrics and locomotion. *Journal of Human Evolution* 99: 10-24.
- 2016 **Hammond AS**, Plavcan JM, Ward CV. A validated method for modeling anthropoid hip abduction *in silico*. *American Journal of Physical Anthropology* 160: 529-548.
- 2016 **Hammond AS**. The anthropoid crista trochanterica and the hip joint capsule. *Anatomical Record* 299: 60-69.
- 2015 Ward CV, Feibel CF, **Hammond AS**, Leakey LN, Moffett EA, Plavcan JM, Skinner MM, Spoor F, Leakey MG. Associated ilium and femur from Koobi Fora, Kenya, and postcranial diversity in early *Homo*. *Journal of Human Evolution* 81: 48-67.
- 2014 Plavcan JM, Meyer V, **Hammond AS**, Couture C, Madelaine S, Holliday TW, Maureille B, Ward CV, Trinkaus E. The Regourdou 1 Neandertal body size. *Comptes Rendus Palevol* 13: 747-754.
- 2014 Plavcan JM, **Hammond AS**, Ward CV. Calculating hominin and non-human anthropoid femoral head diameter from acetabular size. *American Journal of Physical Anthropology* 155: 469-475.
- 2014 **Hammond AS**. *In vivo* baseline measurements of hip joint range of motion in suspensory and nonsuspensory anthropoids. *American Journal of Physical Anthropology* 153: 417-434.
- 2013 **Hammond AS**, Alba DM, Almécija S, Moyà-Solà S. Middle Miocene *Pierolapithecus* provides a first glimpse into early hominid pelvic morphology. *Journal of Human Evolution* 64: 658-666.

- 2013 **Hammond AS**, Plavcan JM, Ward CV. Precision and accuracy of acetabular size measures in fragmentary hominin pelvises obtained using digital sphere-fitting techniques. *American Journal of Physical Anthropology* 150:565-578.
- 2012 Congdon KA, **Hammond AS**, Ravosa MJ. Differential limb loading in domestic pigs (*Sus scrofa domestica*): A test of chondral modeling theory. *Journal of Experimental Biology* 215: 1472-1483.
- 2011 **Hammond AS**, Dumont ER, McCarthy RC. The effect of embedded permanent tooth crowns on the distribution of masticatory stress in children. *PLoS ONE* 6 (12): e29121.
- 2010 **Hammond AS**, Ning J, Ward CV, Ravosa MJ. Mammalian limb loading and chondral modeling during ontogeny. *Anatomical Record (Special Issue)* 293: 658-670.

Books, Book Chapters, and Invited Contributions

- 2018 **Hammond AS**. Chimpanzee past, present, and yet-to-come. The New Chimpanzee by C Stanford [book review]. *Evolutionary Anthropology*.
- 2017 Diogo R, Shearer BM*, Potau JM, Pastor JF, de Paz FJ, Arias-Martorell J, Turcotte C*, **Hammond AS**, Vereecke E, Vanhoof M, Nauwelaerts S, Wood BA. *Photographic and descriptive musculoskeletal atlas of bonobos*. Springer.
- 2016 Ward CV, **Hammond AS**. *Australopithecus* and Kin. *Nature Education Knowledge* 7 (31): 1.
- 2015 **Hammond AS**. Everything Ape, With a Side of Human Evolution. Apes and Human Evolution by RH Tuttle [book review]. *Journal of Mammalian Evolution* 22: 599-600.
- 2015 **Hammond AS**. Primate Comparative Anatomy by DL Gebo [book review]. *The Quarterly Review of Biology* 90: 339.
- 2013 **Hammond AS**, Ward CV. *Australopithecus* and *Kenyanthropus*. In: Begun DR (ed): Companion to Paleoanthropology. New York: Wiley-Blackwell, p. 434-456.

CONFERENCE PAPERS AND POSTERS

- 2018 **Hammond AS**, Almécija S, Rook L, Libsekal Y, Macchiarelli R. A modern human-like one million-year-old partial pelvis from Buia, Eritrea. *Paleoanthropology Society*, p. 8.
- 2018 **Hammond AS**, Hunter L*, Thompson B*, Cordiner E*, Biernat M, Barr WA, Braun DR. Morphology and context of a new early *Homo* mandible from Koobi Fora, Kenya. *American Journal of Physical Anthropology*, 165, S66, p. 111.
- 2018 Fatica LM*, **Hammond AS**, McFarlin SC, Almécija S. Morphological variation in the pelvis of gorilla subspecies may not track ecomorphological predictions. *American Journal of Physical Anthropology*, 165, S66, p. 82.
- 2018 O'Brien K*, McGrosky A, Allen K*, Anderson L*, Biernat M, Braun DR, Guerrero A*, **Hammond AS**, Hunter L*, Seckinger J*, Torres F, Zeller RB*, Patterson DB, Zerihun D*. Early Pleistocene grassland evolution at East Turkana, northern Kenya, as indicated by shifting patterns of mesic and xeric adapted mammals. *American Journal of Physical Anthropology*, 165, S66, p. 191.
- 2018 Shearer BM*, Muchlinksi MN, **Hammond AS**. Unique features of pelvic brim morphology and associated musculature in orangutans. *American Journal of Physical Anthropology*, 165, S66, p. 250.
- 2018 Muchlinksi MN, Hartstone-Rose A, **Hammond AS**. The ligamentum teres femoris is present in some infant orangutans. *American Journal of Physical Anthropology*, 165, S66, p. 183.

- 2017 Reda Hailu W*, Biernat M, Braun DR, **Hammond AS**, Patterson DB, Barr WA. Pleistocene paleoenvironments of the Koobi Fora Formation based on bovid mesowear and abundance analyses. East African Association for Paleoanthropology and Paleontology.
- 2017 Benitez L*, Llera C*, Biernat M, Braun DR, **Hammond AS**, Patterson DB, Barr WA. The implications of faunal abundance for Pleistocene paleoenvironments in the Turkana Basin, northern Kenya. Paleoanthropology Society abstracts book, p. 2-3.
- 2017 **Hammond AS**, Royer D, Fleagle JG. Omo-Kibish pelvic morphology and implications for body form in the earliest modern humans. *American Journal of Physical Anthropology*, 162, S64, p. 209.
- 2017 Baab KL, O'Neill MC, **Hammond AS**, Jungers WL. Comparative morphometric analysis and digital reconstruction of the *Homo floresiensis* pelvis. *American Journal of Physical Anthropology*, 162, S64, p. 106.
- 2017 Thompson B*, Arenson J*, Biernat M, Barr WA, Reeves J*, Braun DR, **Hammond AS**. A preliminary study of primate abundance in East Turkana collection areas relative to outcrop size. *American Journal of Physical Anthropology*, 162, S64, p. 380.
- 2017 Enny A*, Biernat M, Braun DR, Hailu W*, **Hammond AS**, Patterson DB, Barr WA. Exploring the impact of collection strategies on interpretations of faunal abundance: a study from the Koobi Fora Formation (Pleistocene, northern Kenya). *American Journal of Physical Anthropology*, 162, S64, p. 173.
- 2017 Llera C*, Benitez L*, Biernat M, Braun DR, **Hammond AS**, Patterson DB, Barr WA. Subregion-scale heterogeneity in bovid abundance in the Koobi Fora Formation (Pleistocene, northern Kenya). *American Journal of Physical Anthropology*, 162, S64, p. 265.
- 2016 **Hammond AS**, Seiffert ER. A hominoid-like femur from the late Oligocene of Kenya. *American Journal of Physical Anthropology*, 159, S62, p. 167-168.
- 2016 Almécija S, Moyà-Solà S, Alba DM, **Hammond AS**, Tallman ME, Jungers WL. Mosaic and homoplastic evolution of the hominoid skeleton precludes 'overall' ancestral reconstructions based on single-taxon models. *American Journal of Physical Anthropology*, 159, S62, p. 78
- 2015 **Hammond AS**, Olakkengil NP*, Almécija S. A preliminary study of femoral and pelvic shape covariation in anthropoids. *American Journal of Physical Anthropology*, 156, S60, p. 158-159.
- 2015 Ward CV, Peacock SJ*, Winkler ZJ*, **Hammond AS**, Maddux SD. Torso form and locomotion in anthropoid primates. Society for Integrative and Comparative Biology, Abstract Book p. 339.
- 2014 **Hammond AS**, Plavcan JM, Ward CV. Can morphological variables be used to predict hip joint function? An examination of the anthropoid proximal femur and range of abduction. American Association of Anatomists Platform Award Session. *The FASEB Journal*, 28, Supplement 919.10.
- 2014 Winkler ZJ*, Ward CV, **Hammond AS**. Iliac orientation and locomotor behavior in anthropoid primates. *American Journal of Physical Anthropology*, 153, S58, p. 275.
- 2014 **Hammond AS**. Significantly larger hip joint abduction and external rotation abilities increases the hindlimb spatial envelope in suspensory anthropoids. *American Journal of Physical Anthropology*, 153, S58, p. 135.
- 2013 **Hammond AS**, Alba DM, Almécija S, Moyà-Solà S. Middle Miocene hominid *Pierolapithecus* provides insight into early hominid pelvic morphology. Paleoanthropology Society annual meeting program, p. 2.

- 2013 **Hammond AS**, Plavcan JM, Kordos L, Begun DR, Ward CV. *In vivo*-validated digital models of hip joint range of motion applied to fossil hominoids. *American Journal of Physical Anthropology*, 150, S56, p. 142.
- 2012 **Hammond AS**. Evidence for suspensory locomotor adaptations in a Late Miocene fossil ape based on *in vivo*-validated models of hip joint abduction. Romer Prize Symposium. Supplement to the online *Journal of Vertebrate Paleontology*, 106.
- 2012 **Hammond AS**, Plavcan JM, Ward CV. Precision and accuracy of acetabular size measures in fragmentary Plio-Pleistocene hominin pelves obtained using digital sphere-fitting techniques. *American Journal of Physical Anthropology* 147, S54, p.159-160. Earnest A. Hooton Award Winner.
- 2011 **Hammond AS**, Plavcan JM, Ward CV. Hindlimb morphology and hip postures in catarrhine primates. *American Journal of Physical Anthropology* 144, S52, p. 155.
- 2011 Ward CV, Plavcan JM, **Hammond AS**, Feibel C, Spoor F, Leakey LN, Leakey MG. A new hominin pelvis and femur from Koobi Fora, Kenya. *American Journal of Physical Anthropology* 144, S52, p. 305.
- 2010 **Hammond AS**, Koscielniak NJ*, Plavcan JM, Ward CV. 3D analysis of primate hindlimb joints: reconstructing positional abilities in extinct primates. Invited Symposium. Supplement to the online *Journal of Vertebrate Paleontology*, 101A.
- 2010 Ward CV, **Hammond AS**, Plavcan JM, Begun DR, Kordos L. Hip joint morphology and hominoid evolution: from quadrupedal to suspensory to bipedal locomotion. Invited Symposium. Supplement to the online *Journal of Vertebrate Paleontology*, 184A.
- 2010 **Hammond AS**, Plavcan JM, Ward CV. Novel 3D analysis of the proximal femur and hip joint function in living and fossil anthropoids. Invited Symposium. *American Journal of Physical Anthropology* 141, S50, p. 121-122.
- 2010 Ning J, Congdon KA, **Hammond AS**, Ravosa MJ. This little piggy went running, that little piggy stayed home: a forelimb perspective of limb loading. *American Journal of Physical Anthropology* 141, S50, p. 178.
- 2009 **Hammond AS**, Ning J, Ward CV, Ravosa MJ. Mammalian limb loading and chondral modeling during ontogeny. *American Journal of Physical Anthropology* 138, S48, p. 144.
- 2008 McCarthy RC, **Hammond AS**, Yates F, Lieberman P. Voices Out of the Past: Synthesizing Neanderthal Speech. *American Journal of Physical Anthropology* 135, S46, p. 151-152.

TEACHING EXPERIENCE

- 2016-2018 **Koobi Fora Field School**, The George Washington University and National Museums of Kenya
- 2018 **Human Functional Anatomy** (ANTH 3401), The George Washington University
- 2015-2016 **Structure and Function**, Howard University, College of Medicine
- 2013-2014 **Regional Human Gross Anatomy** (HBA 461/561/540), Stony Brook University, School of Health Technology and Medicine
- 2015 **Research in Ecology and Evolution** (BIO 489), Stony Brook University
- 2011 **Human Gross Anatomy for Health Professions** (PTH_AS 7222), University of Missouri, School of Health Professions
- 2006-2008 **Integrated Morphology 1 and 2** (BMS6102, BMS6104), Florida Atlantic University, Schmidt College of Medicine
- 2007 **Human Gross Anatomy** (M1 Block 1), University of Miami, Miller School of Medicine
- 2007 **Human Gross Anatomy** (PCB 6933), Florida Atlantic University, College of Biomedicine

FIELDWORK

- Allia Bay localities, East Turkana, Kenya (2017, 2018). Directors: DR Braun, **AS Hammond**
- Koobi Fora Field School (2016-2018). Directors: DR Braun, E Ndiema
- Can Llobateres in Vallès-Penedès Basin, Spain (2012, 2014). Director: DM Alba
- Castell de Barberà in Vallès-Penedès Basin, Spain (2014). Director: S Almécija
- Pleistocene of East Turkana, Kenya (2009). Director: MG Leakey
- Swartkrans and Limpopo Archaeological Field School, South Africa (2005). Director: K Kuman

INVITED PRESENTATIONS

- 2018 University of Oregon, Department of Anthropology
- 2018 University of Southern California, Division of Human Evolutionary Biology
- 2018 American Museum of Natural History, Department of Anthropology
- 2017 Stony Brook University, Turkana Basin Institute and Department of Anthropology
- 2017 California State University-Sacramento, Department of Biology
- 2017 Paleontological Society of Washington DC
- 2017 New York Institute of Technology, Department of Anatomy
- 2016 New York University, Department of Anthropology
- 2016 Smithsonian Institution's Paleoanthropology Seminar Series
- 2015 University of Central Florida, College of Health and Public Affairs
- 2015 The Johns Hopkins School of Medicine, Center for Functional Anatomy and Evolution
- 2014 University of Connecticut, Department of Anthropology Seminar Series
- 2014 Turkana Basin Institute in Turkwel, Kenya
- 2013 University of Missouri, Department of Pathology and Anatomical Sciences
- 2013 Stony Brook University, Paleobiology Seminar Series

- 2013 University of Missouri School of Medicine Grand Rounds
2013 Missouri Life Sciences Spring Seminar Series (*Award-winning presentation*)

PROFESSIONAL MEMBERSHIPS

American Association of Physical Anthropology (AAPA, 2008-2018)
Paleoanthropology Society (2006-2018)
American Association of Anatomists (AAA, 2011-2018)
Society for Integrative and Comparative Biology (SICB, 2014-2015)
Society for Vertebrate Paleontology (SVP, 2010-2013)
American Association for the Advancement of Science (AAAS, 2016-2017)
European Society for the Study of Human Evolution (ESHE, 2017-2020)

ADDITIONAL PROFESSIONAL PREPARATION

- 2015-2016 Early Career Executive Committee Mentee. American Association of Physical Anthropologists
2014 Improv Techniques for Scientists. Alan Alda Center for Communicating Science, Stony Brook University
2014 Geometric Morphometrics and Phylogeny. Transmitting Science
2014 Anthrotree Phylogenetics Workshop. Duke University
2012 Honorary Fellow. Wisconsin National Primate Research Center
2007 Biomesh Finite Element Modeling Workshop. University of Massachusetts-Amherst
2007-2008 Graduate Research Assistant, Center for Complex Systems and Brain Sciences, Florida Atlantic University

SERVICE

Ad-hoc Referee

Proceedings of the National Academy of Science, Journal of Human Evolution, American Journal of Physical Anthropology, Journal of Mammalian Evolution, Quarterly Review of Biology, The Anatomical Record, Journal of Anatomy, Historical Biology, American Journal of Primatology, Anthropological Science, Anatomy Research International, PLoS One, Springer Publishing, L.S.B. Leakey Foundation

Panels, Programs, and Committees

Chair, Genus *Homo* poster session, American Association of Physical Anthropologists (2018)
Program Committee, American Association of Physical Anthropologists (2017)
Symposium proposal co-organizer (with K. Baab and M. O'Neill) for 'The Evolution of Form and Function in the Hominin Pelvis', American Association of Physical Anthropologists Conference (2017)
Presidential Panel on Harassment Steering Committee, American Association of Physical Anthropologists (2015-2016)
Student Meet and Greet Committee (founder and co-chair), American Association of Physical Anthropologists (2016)
Exhibitors Committee, International Congress of Vertebrate Morphology (2016)
Diversity in Science steering committee, GWU Department of Anthropology (2015-2016)

Early Career Mentee on the AAPA Executive Committee (2015-2016)
AAPA/AAA Anatomy in Anthropology Student Award Committee (2015)

Community Outreach

Washington DC BePolished! outreach event at CASHP (2016)
Scientific outreach to the MU McNair Scholars (2013)
Dinosaurs and Caveman, Missouri's Rock Bridge High School Planetarium (2013)
MU CALEB Science Club (2013)
MU Science Communication and Public Engagement Exhibition (2013)
Columbia Center for Gifted Education (2011)
Missouri high school students (2011-2012)
Anatomy educational events for Florida community colleges and high school students (2006-2008)

Science Communication and Media

Anna's Science Magic Show Hooray (2018). Episode 1: *Why do we have butts?*
Smithsonian's Human Origins Today (HOT) Topics speaker (2017)
The Scientist is In, Smithsonian National Museum of Natural History (2015)
CASHP social media coordinator (2015-2018)
Leakey Foundation Blog (2015). <http://www.leakeyfoundation.org/blog/2015grantee-spotlight-ashley-hammond>
Science Daily (2015). <https://www.sciencedaily.com/releases/2015/03/150309124245.htm>
MU Press Office (2015). <http://munews.missouri.edu/news-releases/2015/0309-ancient-fossils-reveal-diversity-in-the-body-structure-of-human-ancestors/>
Illumination Magazine (2014). online version: http://illumination.missouri.edu/f13/ancestral_apes
Science Daily (2013). <http://www.sciencedaily.com/releases/2013/05/130501132100.htm>
MU Press Office (2013). <http://munews.missouri.edu/news-releases/2013/0501-mu-expert-analyzes-fossil-of-great-ape/>