

Andrew W. Best, Ph.D.

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PROFESSIONAL APPOINTMENTS

- 2021- Assistant Professor, Department of Biology, Massachusetts College of Liberal Arts, North Adams, MA
- 2021 Visiting Lecturer in Biological Sciences, Mount Holyoke College, South Hadley, MA.
- 2017-2020 Instructor and co-creator, Anthropology First Year Seminar: The Human Species. University of Massachusetts.
- 2015-2020 Lab Coordinator, Physical Anthropology wing, University of Massachusetts Department of Anthropology.
- 2014-2018 Instructor, Anthropology 103: Human Origins and Variation. Online course through Continuing and Professional Education, University of Massachusetts.
- 2012-2021 High School Biology Teacher, Pioneer Valley Chinese Immersion Charter School, Hadley, MA.
- 2013-2015 Teaching Assistant, Anthropology 103: Human Origins and Variation. University of Massachusetts.
- 2013 High School Biology Teacher, summer school. Amherst Regional High School, Amherst, MA.
- 2013 Test question writer, Pearson Education, Hadley, MA.
- 2010-2012 Biology Teacher, Easthampton High School, Easthampton, MA.
- 2007-2010 Biological Science Teacher, Academy at Swift River, Cummington MA.
- 2006-2007 Biology Teacher and Track Coach, Manchester High School, Manchester CT.

EDUCATION

- 2021 Ph.D., Anthropology, University of Massachusetts
- 2016 M.A., Anthropology, University of Massachusetts
- 2006 M.A., Teaching, Quinnipiac University
- 2004 B.S., Biology, Saint Michael's College

GRANTS AND AWARDS

- 2022 Summer Research Institute Award- faculty advisor; student Marie Balan as recipient, “Basal metabolic rate in ultra-endurance athletes” (\$2,000)
- 2022 Faculty Incentive Award, Massachusetts College of Liberal Arts, “Limits to human sustained energy expenditure” (\$1,500)
- 2019 Wenner-Gren Foundation Dissertation Fieldwork Grant, PI (with Jason Kamilar, University of Massachusetts, Faculty Advisor). “Diversity and evolution of human eccrine sweat gland density” (\$10,524)
- 2019 Leakey Foundation Research Grant, PI (with Jason Kamilar, University of Massachusetts, Faculty Advisor), “Diversity and evolution of human eccrine sweat glands” (\$14,999)
- 2019 University of Massachusetts Graduate School Dissertation Research Grant, PI (with Jason Kamilar, University of Massachusetts, Faculty Advisor), “Evolution and diversity of human eccrine sweat glands” (\$940)
- 2018 University of Massachusetts Department of Anthropology Predissertation Research Award, PI (with Jason Kamilar, University of Massachusetts, Faculty Advisor), “Human eccrine sweat gland activation: Environmental factors and evolutionary context” (\$3,000)
- 2018 Honorable mention, Arnelagos-Swedlund Graduate Research Award. For podium presentation at AAPA annual meeting: Primate Sweat Gland Evolution.
- 2018 University of Massachusetts Graduate School Predissertation Grant, PI (with Jason Kamilar, University of Massachusetts, Faculty Advisor) (\$996)

PEER-REVIEWED ARTICLES

- 2023 Best, A.W.; Lieberman, D.E.; Gerson, A.R.; Holt, B.M.; & Kamilar, J.M. Variation in human functional eccrine gland density and its implications for the evolution of human sweating. *American Journal of Biological Anthropology*.
- 2021 Best, A. Why does strength training improve endurance performance? *American Journal of Human Biology*, e23526.
- 2021 Dorshorst, T., Gold, C., & Best, A. The 90th annual meeting of the American Association of Physical Anthropologists. *Evolutionary Anthropology: Issues, News, and Reviews*, 30(4), 230-232.
- 2019 Best, A.W., Lieberman, D.E., & Kamilar, J.M. Diversity and evolution of human eccrine

- sweat gland density. *Journal of Thermal Biology*, 84, 331-338.
- 2018 Best, A. & Kamilar, J. The evolution of eccrine sweat glands in human and nonhuman primates. *Journal of Human Evolution*, 117(4), 33-43.
- 2017 Best, A., Holt, B., Troy, K., & Hamill, J. Trabecular bone in the calcaneus of runners. *PloS one*, 12(11), e0188200.
- 2017 Best, A. & Braun, B. Using a novel data resource to explore heart rate during mountain and road running. *Physiological Reports*, 5(8), e13256.
- 2016 Godfrey, L. R., Crowley, B. E., Muldoon, K. M., Kelley, E. A., King, S. J., Best, A. W., & Berthaume, M. A. What did Hadropithecus eat, and why should paleoanthropologists care?. *American Journal of Primatology*, 78(10), 1098-1112.

CONFERENCE PRESENTATIONS AND INVITED APPEARANCES

- April 2023 Invited lecture: “To run is to sweat!”. Museum of Science Boston Marathon Days. Boston, MA.
- April 2023 Virtual podium presentation and Human Biology: Growth and Variation session chair: “The sky’s not the limit: Ultramarathoners and the metabolic ceiling.” American Association of Biological Anthropologists annual meeting.
- March 2023 Podcast guest, “Mikkipedia”. <https://podcast.mikkiwilliden.com/episodes>
- Dec 2022 Podcast guest, “Koopcast”. <https://link.chtbl.com/KoopCast>
- Nov 2022 Invited lecture: “Ultramarathoners and the limits of human energy expenditure”. University of Massachusetts Amherst Anthropology Facets of Evolution Colloquium Series.
- April 2022 Virtual invited symposium presentation: “The slippery relationship between eccrine gland density, sweat production and heat dissipation in humans.” American Association of Biological Anthropologists annual meeting.
- Sep 2021 Podcast guest, “Origins Stories”. <https://leakeyfoundation.org/originstories/>
- April 2021 Virtual podium presentation and Human Biology: Evolution and Adaptation session chair: “Contemporary variation in human eccrine sweat gland density.” American Association of Physical Anthropologists annual meeting.
- Nov 2020 Virtual podium presentation: “Contemporary variation in human eccrine sweat gland density.” Northeastern Evolutionary Primatologists annual meeting.

- Nov 2020 Virtual poster presentation: “An evolutionary perspective on strength training for endurance athletes.” American Physiological Society- Integrative Physiology of Exercise meeting.
- April 2020 Podcast guest, “Let’s Talk About Sweat”.
https://www.youtube.com/watch?v=Nm8gOdhjW8&t=352s&ab_channel=Carpe
- March 2020 Invited virtual lecture: “Beating the heat: How sweating helped make us human.” Waikato Institute of Technology Centre for Sport Science and Human Performance.
https://www.youtube.com/watch?v=FMacNahWfdk&t=2646s&ab_channel=RussellBest
- March 2020 Invited lecture: “Beating the heat: How sweating helped make us human.” Biological Sciences Seminar Series, Mount Holyoke College.
- Nov 2019 Poster presentation: “Variation in human eccrine sweat gland density and its relationship to heat dissipation.” Northeastern Evolutionary Primatologists annual meeting, Amherst MA.
- Oct 2019 Podium presentation: “Evolution and diversity of human eccrine sweat gland density.” Engaging Anthropology Conference, Amherst MA.
- April 2018 Podium presentation: “Primate sweat gland evolution.” American Association of Physical Anthropologists annual meeting, Austin TX.
- Nov 2016 Invited lecture: “The evolution of endurance running.” Sugarloaf Mountain Athletic Club yearly banquet, Amherst MA.
- April 2015 Poster presentation: “Trabecular bone in the calcaneus of runners: Implications for interpreting fossil hominin morphology.” Paleoanthropology Society annual meeting, San Francisco CA.

MEDIA COVERAGE

- July 2022 “9 surprising things sweat can reveal about your health.” *The Edge*.
<https://honehealth.com/edge/health/benefits-of-sweating/>
- July 2021 "Giving sweat the respect it deserves." *The Scientist*. <https://www.the-scientist.com/reading-frames/giving-sweat-the-respect-it-deserves-68855>
- July 2021 *The Joy of Sweat: The Strange Science of Perspiration* by Sarah Everts. <https://wnorton.com/books/9780393635676>
- Nov 2020 “Rethinking the cross-training paradox”- *Outside Online*.
<https://www.outsideonline.com/2419022/rethinking-cross-training-paradox>
- Nov 2019 “Don’t sweat it: an anthropological look at the science of perspiration”- *University of Massachusetts College of Social and Behavioral Sciences*.
<https://www.umass.edu/sbs/news/students/don%E2%80%99t-sweat-it-anthropological->

[look-science-perspiration](#)

- July 2019 “Cool down with the slick science of sweat”- *PBS Nova*.
<https://www.pbs.org/wgbh/nova/article/science-of-sweat/>
- Sept 2018 “This broken gene may have turned our ancestors into marathoners- and helped humans conquer the world”- *Science Magazine*.
<https://www.sciencemag.org/news/2018/09/broken-gene-may-have-turned-our-ancestors-marathoners-and-helped-humans-conquer-world>
- March 2018 “New study from UMass Amherst Anthropologists Examines the Evolution of Mammalian Perspiration”- *UMass Amherst News and Media Relations*.
<https://www.umass.edu/newsoffice/article/new-study-umass-amherst-anthropologist-0>
- June 2018 “Gonna make you sweat”- *UMass Magazine*.
https://issuu.com/uofmassachusettsamherst/docs/umassmag_summer2018_optimized