

# MARIANNE J. COOPER

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## EDUCATION

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- 2024      **Ph.D.**, Biological Anthropology, University at Buffalo, NY  
Dissertation: "The Impact of Obstetrics on Cranial & Pelvic Morphological Evolution in Anthropoid Primates: An Evolutionary Quantitative Genetics Analysis"
- 2021      **M.A.**, Biological Anthropology, University at Buffalo, NY  
Project: "An Analysis of Morphological Evolution in the Catarrhine Appendicular Skeleton Using Methods from Quantitative Genetics"
- 2018      **B.A.**, Anthropology, Portland State University, OR
- 2008      **M.S.**, Management, University of Florida, FL
- 2005      **B.A.**, Classical Studies, University of Florida, FL

## ACADEMIC POSITIONS

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- Present      Lecturer, Western Washington University, Bellingham, WA  
Research Associate, Buffalo Human Evolutionary Morphology Lab, University at Buffalo, NY
- 2024-26      Postdoctoral Research Scholar, Western Washington University, Bellingham, WA
- 2019-24      Graduate Teaching Assistant, Lab Instructor, and Instructor, University at Buffalo, NY

## RELEVANT PROFESSIONAL POSITIONS

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- 2016-19      Museum Educator (On-Call Educator for Life Sciences, Paleontology, Food Sciences, and Chemistry Labs), Oregon Museum of Science and Industry, Portland, OR
- 2013-16      Volunteer Coordinator, Oregon Museum of Science and Industry, Portland, OR
- 2010-11      Grant Specialist, Department of Physical Therapy, University of Florida, Gainesville, FL
- 2009-10      Grant Resource Specialist and Proposal Process Coordinator, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, FL

2008-09 Education Assistant, Florida Museum of Natural History, Gainesville, FL

## GRANTS & AWARDS

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- 2025-26 Mini Grant Program, Western Washington University, Bellingham, WA, "Fossil primate skull study at UC Museum of Paleontology collections (Berkeley, CA)" (\$1962)
- PILOT Project Grant Program, Western Washington University, Bellingham, WA, "Application of evolvability indices to primate cranio-pelvic evolution" (\$5000)
- 2023-26 Doctoral Dissertation Research Improvement Grant, National Science Foundation, "Selection pressures on skull and pelvis proportions at birth," [BCS 2234455](#) (\$32,087)
- 2023-24 Morris E. and Lucille Opler Dissertation Research Scholarship, Department of Anthropology, University at Buffalo, NY (\$7000)
- College of Arts and Sciences Dissertation Fellowship, University at Buffalo, NY (\$7500)
- 2022-23 Mark Diamond Research Fund, Graduate Student Association, University at Buffalo, NY (\$1815)
- 2022 Richard Gilder Graduate School Collections Study Grant, American Museum of Natural History, New York City, NY (\$500)
- Fall 2022 Graduate Student Conference Travel Grant, Department of Anthropology, University at Buffalo, NY (\$500)
- 2019-24 Tuition Scholarship Fund, University at Buffalo, NY
- 2019-23 Presidential Fellowship, University at Buffalo, NY (\$7500/year)

## PUBLICATIONS AND PUBLISHED ABSTRACTS

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- Cooper, M.J.** & von Cramon-Taubadel, N. 2025. An evolutionary quantitative genetic analysis of the impact of cephalopelvic disproportion on cranial and pelvic co-evolution in anthropoids. *American Journal of Biological Anthropology*. 188(1):e70109 <https://doi.org/10.1002/ajpa.70109>
- Cooper, M.J.**, Conaway, M., & von Cramon-Taubadel, N. 2026. A quantitative genetics analysis of evolution in the hominoid appendicular skeleton. *Evolution*. 80(5):979-997 <https://doi.org/10.1093/evolut/qpago26>

### In Review

- Cooper, M.J.**, Conaway, M., & von Cramon-Taubadel, N. Form or shape? Examining the effect of size adjustment on evolutionary analyses of catarrhine appendicular morphology. In review at the *American Journal of Biological Anthropology*.

### In Preparation

**Cooper, M.J.**, Oliver, H., & von Cramon-Taubadel, N. Captivity and covariance: Exploring the impact of environmental differences in evolutionary analyses of the cranium in wild and captive *Macaca fascicularis*.

**Cooper, M.J.** The impact of obstetrics on the evolution of variation in sacral vertebral number in primates.

**Cooper, M.J.**, O'Brien, T.D., & Potter, A. Revisiting heterozygous advantage for phenylketonuria carriers.

### Published Abstracts and Poster Presentations

**Cooper, M. J.**, Landon, C. B., Joy, K. B., Humphrey, M., Brasil, M. F., & Monson, T. A. 2026. Abstract. Evolutionary flexibility in the orbital region in extant papionins. 95<sup>th</sup> annual conference of the American Association of Biological Anthropologists, Denver, CO. *American Journal of Biological Anthropology*, 189 (S81), 32

Monson, T. A., Weitz, A. P., & **Cooper, M. J.** Abstract. Orbital variation and the evolution of apes. 2026. 95<sup>th</sup> annual conference of the American Association of Biological Anthropologists, Denver, CO. *American Journal of Biological Anthropology*, 189 (S81), 130

**Cooper, M. J.**, Humphrey, M., Brasil, M. F., & Monson, T. A. 2026. Abstract. A comparison of variance-covariance matrices in fossil and extant papionins. 2026 annual meeting of the Paleoanthropology Society. *PaleoAnthropology*, 2026 (1), 254.

**Cooper, M. J.**, & von Cramon-Taubadel, N. 2025. Abstract. Assessing obstetric selection in the cranium and pelvis of anthropoid primates using methods from evolutionary quantitative genetics. 94<sup>th</sup> annual conference of the American Association of Biological Anthropologists, Baltimore, MD. *American Journal of Biological Anthropology*, 186 (S79), 34.

**Cooper, M. J.**, Conaway, M., & von Cramon-Taubadel, N. 2024. Abstract. Form or shape? How data standardization affects results of quantitative genetic analyses of the primate appendicular skeleton. 2024 annual meeting of the Paleoanthropology Society, Los Angeles, CA. *PaleoAnthropology*, 2024 (1), 154.

**Cooper, M. J.** & von Cramon-Taubadel, N. 2024. Abstract. An analysis of cranial and pelvic covariation, with implications for the evolution of cephalopelvic disproportion in non-human primates. 93<sup>rd</sup> annual conference of the American Association of Biological Anthropologists, Los Angeles, CA. *American Journal of Biological Anthropology*, 183 (S77), 33.

**Cooper, M.J.**, Simons, E., & von Cramon-Taubadel, N. 2023. Abstract. A quantitative genetic analysis of selection in the non-human hominid cranium over four ontogenetic stages. 92<sup>nd</sup> annual conference of the American Association of Biological Anthropologists, Reno, NV, April 19-22. *American Journal of Biological Anthropology*, 180 (S75), 37.

Doherty, L., **Cooper, M.J.**, Nekaris, K.A.I., Blair, M.E., von Cramon-Taubadel, N., Poindexter, S.A. 2023. Poster presentation. Characterizing separate slow loris species via landmark-based cranial morphology. Presented by first author at the Joint Meeting of the Northeastern Evolutionary Primatologists and the Mid-Atlantic Biological Anthropology Interest Group, Richmond, VA.

**Cooper, M.J.**, Conaway, M., & von Cramon-Taubadel, N. 2022. Abstract. An analysis of morphological evolution in catarrhine appendicular skeleton using methods from quantitative genetics. 91<sup>st</sup> annual conference of the American Association for Biological Anthropologists, Denver, CO, March 23-26. *American Journal of Biological Anthropology*, 177 (S77), 36.

Pinkston, E. F. E., **Cooper, M.J.**, & von Cramon-Taubadel, N. 2022. Abstract. The efficacy of *a priori* grouping in cold adaptation studies. 91<sup>st</sup> annual conference of the American Association for Biological Anthropologists, Denver, CO, March 23-26. *American Journal of Biological Anthropology*, 177 (S77), 144.

**Cooper, M.J.**, Conaway, M., & von Cramon-Taubadel, N. 2021. Abstract. An analysis of morphological evolution in the hominid lower limb using methods from quantitative genetics. European Society for the study of Human Evolution 2021 Meeting, Online, September 22-26. *PaleoAnthropology*, 2021 (1), 164.

**Cooper, M.J.**, Simons, E., & von Cramon-Taubadel, N. 2021. Abstract. A geometric morphometric analysis of cranial ontogenetic integration in non-human hominids. 90<sup>th</sup> annual conference of the American Association for Physical Anthropologists, Online, April 7-28. *American Journal of Physical Anthropology*, 174 (S71), 22.

Potter, A., & **Cooper, M.J.** 2019. Abstract. Revisiting Heterozygous Advantage for Phenylketonuria Carriers. 88<sup>th</sup> annual conference of the American Association for Physical Anthropologists, Cleveland, OH, March 27-30. *American Journal of Physical Anthropology*, 168 (S68), 194.

## **TEACHING EXPERIENCE**

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### Instructor of Record

2026 Instructor for early undergraduate students, **Introduction to Biological Anthropology** (ANTH 215, Winter and Spring quarters), Western Washington University, Bellingham, WA

Instructor for advanced undergraduate students, **Human Osteology and Forensic Anthropology** (ANTH 420, Summer quarter)

2022 Instructor for early undergraduate students, **Introduction to Biological Anthropology** (APY 107), University at Buffalo, NY

Lab instructor for advanced undergraduate students, **Comparative Primate Anatomy, Lab C** (APY346), University at Buffalo, NY

2021 Lab instructor for advanced undergraduate students, **Comparative Primate Anatomy, Lab C** (APY346, remote course), University at Buffalo, NY

#### Teaching Assistant

2023 Teaching assistant for advanced undergraduate students, **Forensic Anthropological Osteology** (APY 348), University at Buffalo, NY

2021 Teaching assistant for advanced undergraduate students, **Forensic Anthropological Osteology** (APY 348), University at Buffalo, NY

2020 Teaching assistant for early undergraduate students, **Introduction to Biological Anthropology** (APY 107, remote course), University at Buffalo, NY

Teaching assistant for early undergraduate students, **Introduction to Anthropology** (APY 105), University at Buffalo, NY

2019 Teaching assistant for early undergraduate students, **Introduction to Biological Anthropology** (APY 107), University at Buffalo, NY

#### Invited Talks

2026 “**Uncovering Evolutionary Processes Affecting Human Skeletal Evolution,**” presented on April 8 to the Department of Anthropology, Kent State University, Kent, OH

2025 “**Vision, Evolution, and the Human Cranium,**” presented on October 24 at the Integrative Human Evolution Symposium: The Evolution of Vision, Western Washington University, Bellingham, WA.

2024 “**Evolutionary Processes Affecting the Primate Skeleton,**” presented on February 8 to the Department of Anthropology, SUNY Oneonta, Oneonta, NY

#### Guest Lectures

2025 **Human Osteology and Forensic Anthropology** (ANTH 420/520), Western Washington University, Bellingham, WA.

“Current Research in Biological Anthropology.” November 5, 2025

**Cultural and Biological Aspects of Pregnancy and Childbirth (FAIR 338P)**, Fairhaven College of Interdisciplinary Studies, Western Washington University, Bellingham, WA.

“The ‘Obstetric Dilemma’ and Human Pregnancy.” February 13, 2025

2024 **Human Evolution/Primate Evolution** (ANTH 423/523), Western Washington University, Bellingham, WA.

“Current Research in Biological Anthropology.” December 4, 2024

2023 **Anatomy and Physiology II** (BIO 104), Villa Maria College, Buffalo, NY

“Heredity.” December 7, 2023

- 2022 **Introduction to Biological Anthropology** (APY 107), University at Buffalo, NY  
 “Genetics.” February 17, 2022. (Online)
- 2020 **Introduction to Biological Anthropology** (APY 107), University at Buffalo, NY  
 “The Genus *Homo*, Part II.” October 19, 2020 (Online)  
 “The Genus *Homo*, Part I.” October 12, 2020 (Online)  
 “Paleoanthropology: The Hominin Fossil Record.” September 28, 2020 (Online)
- Introduction to Anthropology** (APY 105), University at Buffalo, NY  
 “Primates and Primatology.” February 28, 2020  
 “Hominin Evolution.” March 4, 2020  
 “Modern Humans, Neandertals, and the Upper Paleolithic.” March 6, 2020
- 2019 **Introduction to Biological Anthropology** (APY 107), University at Buffalo, NY  
 “Neandertals and Modern Humans.” October 8, 2019  
 “Heterozygous Advantage in PKU Carriers.” November 5, 2019

## **STUDENT MENTORING**

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### Undergraduate

- Undergraduate Research Assistant supervision, Western Washington University
  - Fall 2024-present: 2 students
- Undergraduate Teaching Assistant supervision and training, University at Buffalo
  - Fall 2023: 2 students, Forensic Anthropological Osteology (APY 348)
  - Spring 2021: 3 students, Comparative Primate Anatomy, Lab C (APY 346)
  - Fall 2021: 1 student, Forensic Anthropological Osteology (APY 348)
- Undergraduate Student Intern supervision (APY 496)
  - Spring 2023: 6 students; Buffalo Human Evolutionary Morphology Lab Database Internship (2 students) and University at Buffalo Primate Skeletal Collection Internship (4 students)

### Graduate

- Research supervision: 1 MA student (Western Washington University)
- Data collection methods training: 2 MA students and 2 Ph.D. students (University at Buffalo), 3 MA students (MA, Western Washington University)

## **RESEARCH EXPERIENCE**

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- 2024-present Postdoctoral research investigating orbital morphology in primates (United States, Belgian, German, and Swiss primate skeletal collections); supervision of undergraduate and graduate students affiliated with the WWU Primate Evolution Lab
- 2022-24 Dissertation research investigating anthropoid primate cranial and pelvic skeletal morphology (United States, Belgian, and German primate skeletal collections)

2023 Buffalo Human Evolutionary Morphology Lab internship program (APY 496) development; supervision of interns in BHEML and the UB Primate Skeletal Collection

2021 Pilot study completed on postcranial skeletal evolution in catarrhine primates

## PROFESSIONAL AFFILIATIONS

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- American Association of Biological Anthropologists
- European Society for the Study of Human Evolution
- Society for the Study of Evolution
- Paleoanthropology Society

## REVIEWER FOR

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- The American Journal of Biological Anthropology
- The Anatomical Record
- Nature Communications
- Scientific Reports

## SYMPOSIA ORGANIZED

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2026 A Sense of Structure: Sensory Systems and Primate Evolution. Co-organizer with Tesla A. Monson and Marianne F. Brasil. 2026 meeting of the American Association of Biological Anthropologists, Denver, CO, March 19, 2026.

2025 Integrative Human Evolution Symposium: The Evolution of Vision. Co-organizer with Tesla A. Monson (lead organizer) and Marianne F. Brasil. Western Washington University, Bellingham, WA, October 24, 2025.

## PROFESSIONAL AND COMMUNITY SERVICE

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2025-26 **Scientific Program Committee Member**, 95<sup>th</sup> Annual Meeting of the American Association of Biological Anthropologists, Denver, CO

2024 **Student Volunteer**, 93<sup>rd</sup> Annual Meeting of the American Association of Biological Anthropologists, Los Angeles, CA

2021-24 **Graduate Ambassador**, College of Arts and Sciences, University at Buffalo, NY

2023 **Anthropology Department Open House Volunteer**, Buffalo Human Evolutionary Morphology Lab, University at Buffalo, NY

**Student Volunteer**, 92<sup>nd</sup> Annual Meeting of the American Association of Biological Anthropologists, Reno, NV

**Anthropology Day Volunteer**, Buffalo Human Evolutionary Morphology Lab, University at Buffalo, NY

2021-23 **Graduate Representative to the Faculty**, Anthropology Graduate Student Association, University at Buffalo, NY

2021-22 **Grant Application Reviewer**, Mark Diamond Research Fund, University at Buffalo, NY

2020 **Biological Anthropology Subcommittee Member** for PhD Excellence Initiative, Anthropology Graduate Student Association, University at Buffalo, NY

**Associate Editor**, *Artifacts Bones Discourse Student Journal*, University at Buffalo, NY

## MUSEUM RESEARCH EXPERIENCE

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- American Museum of Natural History, New York, NY
  - Mammalogy Collection: July and August 2022; April 2023; August 2023; July and August 2024, March 2025
  - Anthropology Collection: August 2022
- Field Museum of Natural History, Chicago, IL
  - Mammalogy Collection: August 2023; January and February 2025
- Museum of Comparative Zoology, Cambridge, MA
  - Mammalogy Collection: November 2022, May 2023, February and March 2025
- Museum Für Naturekunde, Berlin, Germany
  - Mammalogy Collection: May 2023, September 2025
- Neil C. Tappen Collection, Department of Anthropology, University of Minnesota, Minneapolis, MN
  - Anthropology Collection: August 2023
- Powell-Cotton Museum, Birchington, United Kingdom
  - Natural History Collection: March 2026
- Royal Museum of Central Africa, Tervuren, Belgium
  - Mammalogy Collection: June 2023, September 2025
- Royal Belgian Institute of Natural Sciences, Brussels, Belgium
  - Mammalogy Collection: June 2023
- Senckenberg Forschungsinstitut Mammalogie, Frankfurt, Germany
  - Mammalogy Collection: August 2025
- Smithsonian National Museum of Natural History, Washington, DC
  - Mammalogy Collection: February and March 2023; August and September 2024
- Powell-Cotton Museum at Quex House, Birchington-on-Sea, Kent, United Kingdom
  - Primate Collection: March 2026

- University at Buffalo Primate Skeletal Collection, Buffalo, NY
  - Primate Collection: August 2019-October 2024
- University of California Museum of Paleontology, Berkeley, CA
  - Vertebrate Collection: February 2026
- Universität Zürich, Zurich, Switzerland
  - Evolutionary Anthropology Collection: August 2025
- Zoologische Staatssammlung München, Munich, Germany
  - Mammalogy Collection: June 2023

## **TECHNICAL SKILLS**

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- Hardware: HDI 120 Structured Light Scanner, Polyga S1 Compact Wide Structured Light Scanner, Metron RX Macro Structured Light Scanner, Artec 3D Spider Structured Light Scanner, NeoScan N80 Micro-CT Scanner, MicroScribe digitizer
- Imaging software: FlexScan, Artec Studio, MeshLab, Slicer, Geomagic Design X
- Landmarking software: ViewBox, SlicerMorph, Checkpoint
- Analytical software: R, R Studio, MorphoJ
- Collections management: care and curation of skeletal specimens, specimen photography
- Online course management: Blackboard Learning System, D2L Learning System, Canvas Learning System
- Data management: organization and maintenance of the Buffalo Human Evolutionary Morphology Lab digital scan collection (over 10,000 scans), organization and maintenance of Primate Evolution Lab digital scan collection (over 1,800 scans)

## **ADDITIONAL TRAINING**

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| 2023 | <p>Introduction to Bayesian Inference in Practice, Transmitting Science (Online)<br/>Instructors: Dr. Daniele Silvestro and Tobias Andermann</p> <p>SlicerMorph Workshop, American Association of Biological Anthropologists<br/>Instructor: Dr. Chi Zhang</p>                     |
| 2022 | <p>Mapping Trait Evolution, Transmitting Science (Online)<br/>Instructor: Dr. Jeroen B. Smaers</p> <p>Evolutionary Quantitative Genetics Workshop, Friday Harbor Laboratories, University of Washington (Online)<br/>Instructors: Dr. Joe Felsenstein and Dr. Stevan J. Arnold</p> |