Levi Raskin

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Appointments

Fall 2024 – Spring '25 Graduate Student Instructor, Department of Integrative Biology, University of California, Berkeley

Education

Fall 2024 PhD program in Integrative Biology, University of California, Berkeley.
Advisor: Dr. John Huelsenbeck.
Advisory committee: Dr. John Huelsenbeck, Dr. Rasmus Nielsen, and Dr. Jack Tseng.

2020 – 2024 Haverford College, Biology and Anthropology double major at Bryn Mawr College via Haverford-Bryn Mawr Bi-College consortium.
Advisors: Dr. Maja Šešelj and Dr. Bárbara Bitarello
Honors: cum laude, departmental honors in Biology, departmental honors in Anthropology

Preprints

Raskin, Levi Y.; Šešelj, Maja; and Bitarello, Bárbara D. (2024). Evaluating trait redundancy and information content and their effects on hominin phylogenetic inference. bioRxiv.

Manuscripts in prep

Raskin, Levi Y.; Bitarello, Bárbara D.; O'Hara, Mackie C.; and Šešelj, Maja (2024). Perikymata are unlikely to differentiate between Middle Pleistocene hominin taxa. Intend to submit to *Journal of Human Evolution*.

Published Abstracts

Raskin, Levi Y.; Šešelj, Maja; and Bitarello, Bárbara D. (2024). The effect of trait redundancy on parsimony-inferred tree topologies from a hominin character matrix [Podium presentation]. Paleoanthropology Society.

Raskin, Levi Y.; O'Hara, Mackie C.; Erskine, Amy I.; and Šešelj, Maja. (2024). Moving great ape osteobiographies forward: digitally linking macro and micro data and media at the individual level [Podium presentation]. American Association of Biological Anthropologists.

Raskin, Levi Y.; Reeves, Jonathan S.; Douglass, Matthew J.; and Braun, David R. (2023). Least-effort knapping as a baseline to study social transmission in the Early Stone Age [Poster]. Society for American Archaeology.

Reeves, Jonathan S.; **Raskin, Levi Y.**; Douglass, Matthew J.; and Braun, David R. (2023). Establishing baselines for stone tool variation across the Early Pleistocene: A least effort approach [Podium presentation]. Society for American Archaeology.

Presentations

Spring 2024 *Perikymata are unlikely to differentiate between Middle Pleistocene hominin taxa*. Biology Senior Presentations, Bryn Mawr, PA.

Spring 2024	*The effect of trait redundancy on parsimony-inferred tree topologies from a hominin character matrix.* Annual meeting of the Paleoanthropology Society, Los Angeles, CA.
Spring 2024	*Moving great ape osteobiographies forward: digitally linking macro and micro data and media at the individual level*. Annual Meeting of the American Association of Biological Anthropologists, Los Angeles, CA.
Summer 2023	*Developing imaging techniques for perikymata*. Summer Science Research Poster Session, Bryn Mawr, PA.
Spring 2023	*Least-effort knapping as a baseline to study social transmission in the Early Stone Age*. Annual Meeting of the Society for American Archaeology, Portland, OR.
Fall 2022	*Least-effort handaxes*. Koobi Fora Training and Research Project Workshop, Washington, D.C.
Fall 2022	*Are handaxes the first culture?* Hurford Center for Arts and Humanities Breaking the Rules Fellow talk, Haverford, PA.

Grants, Fellowships, and Awards

Fall 2023	Louis Green Fund and the Koshland Integrated Natural Sciences Center Conference Fund: $2400
Fall 2023	Bryn Mawr College Award for Conference Travel: $450
Summer 2023	Bryn Mawr College Summer Science Research Program Stipend
Spring 2023	Barry Goldwater Scholarship
Fall 2022	Louis Green Fund: $1500
Spring 2022	Pauline Adams Fund for Excellence in Anthropology: $4500
Spring 2022	Deborah Lafer-Scher International Internship: $1800
Spring 2022	Hurford Center Breaking the Rules Fellowship: $3200
Spring 2022	Frederica de Laguna Fund: $700

Research Experience

2024 – ongoing Graduate research:

Integrating 3D geometric morphometric methods with likelihood based phylogenetic inference. Mentored by Professor John Huelsenbeck (UC California, Berkeley).

2020 – 2024 Bachelor's research:

Tested the phylogenetic information content of great ape perikymata. All analyses are complete and the manuscript has been drafted; in the final

stages of editing. Mentored by Professors Maja Šešelj and Bárbara Bitarello (Bryn Mawr College).

Devised a novel method to test the phylogenetic information content of traits in a character matrix. Ongoing, submitting to *Proceedings of the National Academy of Sciences*, mentored by Professors Maja Šešelj and Bárbara Bitarello. Presented this work at the Paleoanthropology Society 2024 annual meeting.

Improving existing and developing novel phylogenetic comparative methods for small clades. Currently focusing on improving the power of Blomberg's K to small clades using machine learning and bootstrapping. Ongoing, mentored by Professors Maja Šešelj and Bárbara Bitarello.

Experimental archaeology research into social transmission in the Early Pleistocene using 3D geometric morphometrics and a novel application of elliptical Fourier analysis I developed. With Jonathan Reeves (PI, Max Planck Institute for Evolutionary Anthropology), Matthew Douglass (U. Nebraska-Lincoln), and David Braun (George Washington University).

2019 – 2020 High School research – research at the University of Chicago Alemseged lab. 2D morphometrics of Oldowan and Acheulean tool typologies from Olduvai Gorge.

Collections Experience

2024 – ongoing University of California Museum of Paleontology (Berkeley, California) – affiliated student, 3D scanning proboscideans, cetaceans, and artiodactyls for 3DGM-based phylogenetic inference.

2023 Field Museum of Natural History (Chicago, Illinois) – 3D scanning great ape specimens for senior thesis research. Scans are, or will be, available on MorphoSource. Noticed poor treatment of specimens by past researchers since I had last been in the collection, communicated with FMNH mammals curator, and storage policies have improved to prevent misuse of specimens by researchers.

2022 Field Museum of Natural History (Chicago, Illinois) – dental mold making of great ape specimens for senior thesis research.

Fieldwork Experience

2022 Excavation at a 1.5 Ma Acheulean site in Koobi Fora, Kenya. Led by Dr. Jonathan Reeves as part of the Koobi Fora Field School.

2021 Excavation at the ancestral Wichita site of Etzanoa, near Arkansas City, Kansas. Led by Dr. Donald Blakeslee and Dr. Crystal Dozier.

Workshops

2024 Phylogenetic Biogeography Workshop (Washington University in St. Louis). Learned to do Bayesian phylogenetic biogeography with RevBayes.

2022 Intro to GIS using R (University of Reading). Learned how to integrate R and GIS for spatial analysis.

2022	Koobi Fora Research and Training Project Workshop (George Washington University). Presented my research on the Acheulean industry and received feedback on my study design and research.
2021	TOOTH workshop (University of Zurich). Learned how to do dental occlusal wear and fingerprinting.

Relevant Coursework

Fall 2024	UC Berkeley Integrative Biology 206 Statistical Phylogenetics
Summer 2023	Statistical Rethinking, taught by Richard McElreath on GitHub
Spring 2023	UPenn Anthropology 6020 Evolutionary Anthropology

Courses Taught

Fall 2024	UC Berkeley Integrative Biology Bio 1B lab, Graduate Student Instructor
Fall 2023	Bryn Mawr College Biology Biostatistics with R, undergraduate TA
Fall 2022	Bryn Mawr College Anthropology Introduction to Biological Anthropology, undergraduate TA

Mentoring Experience

Fall 2024 – ongoing	Mentored undergraduate at the University of Wisconsin Eau Claire via the Goldwater Ambassadors program.
Summer 2024	Helping mentor a Bryn Mawr College Sumer Science Research student studying fluctuating asymmetry in incremental dental microstructures to test hypotheses about embodied morphologies in those tissues.
Summer 2023	Helped mentor a University of St. Andrews summer research student 3D scanning dental casts and conducting archival research into the Field Museum of Natural History great apes. She is a coauthor on my 2024 AABA podium presentation.
Spring 2023 – Fall ‘23	Mentored undergraduate at University of Hartford via the Goldwater Ambassadors program.

Service

2024 – ongoing	Graduate student workshop instructor with the University of California Museum of Paleontology ACCESS program. Planning and teaching paleontology, paleoanthropology, 3D scanning, and 3D geometric morphometrics workshops to Bay Area community colleges.
2024 – ongoing	Running a phylogenetics methods reading group at UC Berkeley.
2023	Helped design and write an R package for teaching biostatistics at Bryn Mawr College.

2022 – 2023	Helping plan the "Inclusivity in Fieldwork" workshop with Yale's Paleoarchaeology Laboratory to develop more ethical fieldwork practices drawing from a diversity of disciplines which do fieldwork.

Professional Memberships

Society for Systematic Biologists (SSB)

American Association of Biological Anthropologists (AABA)

Society for American Archaeology (SAA)

Paleoanthropology Society