Maya Juman

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EDUCATION

Ph.D. in Biological Sciences, Gates Cambridge Scholar Department of Veterinary Medicine, University of Cambridge, UK

Fall 2022 - Present

B.S. in Ecology & Evolutionary Biology, *magna cum laude*, with distinction (3.91/4.00) Yale University, New Haven, CT, USA

May 2020

PEER-REVIEWED PUBLICATIONS

Olson, L.E.*, **Juman**, **M.M.*** (*submitted*) Host taxonomy is critical in zoonotic disease surveillance and reporting. Journal of Wildlife Diseases. (*both authors contributed equally to this work)

Juman, M.M., Olson, L.E., Sargis, E.J. (*in review*) Craniometric variation and taxonomic boundaries in the Madras Treeshrew (Scandentia, Tupaiidae: *Anathana ellioti* [Waterhouse, 1850]) from India. Journal of Mammalian Evolution.

Juman, M.M., Woodman, N., Miller-Murthy, A., Olson, L.E., Sargis, E.J. (2022) Taxonomic boundaries in Lesser Treeshrews (Scandentia, Tupaiidae: *Tupaia minor* Günther, 1876). Journal of Mammalogy 103(6): 1431-1440.

Juman, M.M., Millien, V., Olson, L.E., Sargis, E.J. (2022) Recent and rapid ecogeographical rule reversals in Northern Treeshrews. Scientific Reports 12: 19689.

Juman, M.M., Olson, L.E., Sargis, E.J. (2021) Skeletal variation and taxonomic boundaries in the Pen-tailed Treeshrew (Scandentia, Ptilocercidae: *Ptilocercus lowii* Gray, 1848). Journal of Mammalian Evolution 28(4): 1193-1203.

Juman, M.M., Woodman, N., Olson, L.E., Sargis, E.J. (2021) Ecogeographic variation and taxonomic boundaries in Large Treeshrews (Scandentia, Tupaiidae: *Tupaia tana* Raffles, 1821) from Southeast Asia. Journal of Mammalogy 102(4): 1054-1066.

Ruane, S., Myers, E.A., Lo, K., Yuen, S., Welt, R.S., **Juman, M.M.**, Futterman, I., Nussbaum, R.A., Schneider, G., Burbrink, F.T., Raxworthy, C.J. (2018) Unrecognized species diversity and new insights into colour pattern polymorphism within the widespread Malagasy snake *Mimophis* (Serpentes: Lamprophiidae). Systematics and Biodiversity 16(3): 229-244.

RESEARCH PRESENTATIONS

Juman, M.M., Restif, O. Seasonal and spatial patterns of henipavirus seroprevalence in Straw-Coloured Fruit Bats (*Eidolon helvum*). **To be presented at the British Ecological Society Annual Meeting**, Belfast, UK (12/14/2023).

Juman, M.M., Millien, V., Olson, L.E., Sargis, E.J. Recent and rapid ecogeographical rule reversals in Northern Treeshrews. **Presented at the International Mammalogical Congress**, Anchorage, AK (7/14/2023).

Juman, M.M., Restif, O. Seasonal and spatial patterns of henipavirus seroprevalence in Straw-Coloured Fruit Bats (*Eidolon helvum*). **Presented at the Cambridge Infectious Diseases Symposium** (4/4/2023), **Cambridge Disease Dynamics Unit Seminar** (5/18/2023), **and the Bat One Health Consortium** (6/26/2023).

Juman, M.M., Woodman, N., Miller-Murthy, A., Olson, L.E., Sargis, E.J. Taxonomic boundaries in Lesser Treeshrews. **Presented at the Meeting of the American Society of Mammalogists**, virtual (6/18/2022). Juman, M.M., Olson, L.E., Sargis, E.J. Skeletal variation and taxonomic boundaries in the Pen-tailed Treeshrew. **Presented at the Meeting of the American Society of Mammalogists**, virtual (6/15/2021).

Juman, M.M., Woodman, N., Olson, L.E., Sargis, E.J. Hand proportions and taxonomic boundaries among Large Treeshrews. **Presented at the Meeting of the American Society of Mammalogists**, Washington, D.C. (6/29/2019).

IUCN RED LIST ASSESSMENTS

Juman, M.M., Sargis, E.J. (accepted) Tupaia belangeri. The IUCN Red List of Threatened Species 2023.

Juman, M.M., Sargis, E.J. (accepted) Tupaia minor. The IUCN Red List of Threatened Species 2023.

Juman, M.M., Sargis, E.J. (accepted) Ptilocercus lowii. The IUCN Red List of Threatened Species 2023.

Juman, M.M., Sargis, E.J. (accepted) Tupaia tana. The IUCN Red List of Threatened Species 2023.

FELLOWSHIPS, GRANTS, AND AWARDS

Accelerate-C2D3 (Cambridge Centre for Data-Driven Discovery) Research and Innovation Grant (£9,30 Harnessing AI to unlock natural history collections for zoonotic surveillance	2023
Gates Cambridge Scholarship (full PhD tuition + £20,000/year stipend)	2022 - 2026
NSF Graduate Research Fellowship (\$138,000, declined)	2022 - 2025
Fulbright U.S. Student Research Fellowship to Malaysia (\$18,000, postponed due to COVID-19)	2021 - 2022
Travel Awards (\$200, \$400, \$600), American Society of Mammalogists	2021, 2022, 2023
Y-Work Award for Outstanding Student Employees, Yale University	2020
Undergraduate Research Honorarium (\$1,200), American Society of Mammalogists	2019
Dean's Research Fellowship in the Sciences (\$4,300), Yale University	2019
Alan S. Tetelman Fellowship for International Research in the Sciences (\$3,600), Yale University	2019
Yale Summer Environmental Fellowship (\$2,000), Yale School of the Environment	2019
Richter Summer Fellowship (\$1,000), Saybrook College	2019
Summer Internship Stipend (\$4,000), Yale-Smithsonian Partnership	2018
Karen L. Von Damm Undergraduate Research Fellowship (\$3,784), Yale Earth & Planetary Sciences	2017
TEACHING	

TEACHING

Part I Pathology: Mathematical Biology, University of Cambridge

Easter Term 2023

Demonstrator (assessed students' R code for a practical assignment on epidemiological modeling)

Part II Zoology L1: Mammalian Evolution and Comparative Anatomy, University of Cambridge Lent Term 2023 Supervisor (led specimen-based small group teaching for third-year undergrads, provided writing feedback)

S&DS S230: Data Analysis and Exploration, Yale University

Summer 2020

Teaching assistant (held office hours, graded assignments, demonstrated R code)

ANTH S242: Human Evolutionary Biology, Yale University

Summer 2020

Writing fellow (served as primary writing resource for 90 students)

BIOL 104: Ecology and Evolutionary Biology, Yale University	4/24/2020
MCDB 105a: Biology, the World, and Us, Yale University	4/15/2020
EVST 007: The New England Forest, Yale University	11/21/2019

Guest lecturer (led in-person and virtual tours of Peabody Museum collections)

Yale College Writing Center

2017 - 2020

ESL-Certified Writing Partner (held weekly drop-in tutoring hours open to all undergraduates, provided writing feedback to non-native English speakers)

SCIENCE COMMUNICATION

Contributor, Bat Pathogen Spillover Compendium, Johns Hopkins University

2023 - Present

- Work with a team of disease ecologists to review scientific papers on bat virus spillover for a general audience.
- These reviews will be part of a publicly available, expert-curated database (to be launched in Spring 2024).

Species Page Contributor, India Biodiversity Portal (*indiabiodiversity.org*)

2022 - Present

- Validate and identify observations of Scandentia (treeshrews) in an open citizen science database.
- Edit and update species information, literature, and taxonomy for treeshrews and other small mammals.
- Founder and administrator of the Small Mammals of India microsite.

Tour Guide and Collections Assistant, Yale Peabody Museum of Natural History (part-time job)

2016 - 2020

- Led behind-the-scenes tours to encourage public engagement with the Peabody's collections and research.
- Digitized 6,573 invertebrate and vertebrate fossils for the NSF Cretaceous World Project.
- Led and produced a remote tour during the COVID-19 pandemic for Yale's introductory biology course.

Podcast Host and Producer, "Inkredible: A Cephalopodcast," published on SoundCloud, Apple, and Spotify

2019

• Created an original episode about biological ink, accompanied by a website (inkrediblepod.wordpress.com).

Photographer, "Peabody Portraits," presented at Yale School of Art

2019

• Edited and compiled a portfolio of DSLR images of the Yale Peabody Museum's paleontology collections.

Writer, "The Taming of the Treeshrew" (tamingofthetreeshrew.wordpress.com)

2018

• Maintained a blog documenting collections-based research experiences at Yale and the Smithsonian.

STEM Representative, Yale Admissions Office (part-time job)

2017 - 2019

- Produced virtual content about research opportunities at Yale (e.g. museum tours for Yale Snapchat account).
- Presented on STEM panels during admitted student weekends (with 1000+ students in attendance each year).

OUTREACH AND MENTORSHIP

Cambridge Science Festival

March 2023

Activity organizer (designed and ran a "bat virus hunting" activity for families visiting the veterinary school)

Ecology and Evolutionary Biology Mentor Match

2022 – Present

Mentor (provide personalized feedback to undergraduate students applying to graduate school and fellowships)

Letters to a Pre-Scientist

2021 – Present

STEM pen pal (write science-themed letters in Spanish and English to middle schoolers in underserved school districts)

Alumni Career Panels, American Museum of Natural History

6/22/2019, 9/10/2021, 9/30/2022

Panelist (spoke about college admissions, academic career paths, and research opportunities with NYC high school students enrolled in the museum's Science Research Mentoring Program)

Yale Ecology & Evolutionary Biology Undergraduate Group

2019 - 2020

Co-President and Peer Mentor (organized research panels, social events, and workshops for students)

UNDERGRADUATES MENTORED

Lewis Drummond, University of Cambridge (direct supervisor for Part II research project)	2023 – Present
Gabrielle Roman, Yale University (provided training in R-based multivariate analyses)	2023
Katie Handler, Yale University (provided training in R-based multivariate analyses)	2022

PUBLIC SERVICE

COVID-19 Response Coordinator, Philadelphia Department of Public Health (full-time job)

2020 - 2022

- Supervised a team of contact tracers and investigate high-risk COVID-19 clusters.
- Designed monthly software updates to streamline the collection and management of epidemiological data.
- Synthesized and presented weekly patterns to Chief of Operations and Philadelphia Health Commissioner.

INVITED TALKS AND PANELS

"Recent and rapid ecogeographical rule reversals in Northern Treeshrews" 12/7/2022 Olson Lab, University of Alaska Fairbanks

"Viruses, Variants, Virulence: Lessons from Ecology and Evolution" Philadelphia Department of Public Health

1/25/2022

"Scientific and cultural uses of cephalopod ink"

2/13/2020

Yale Peabody Museum of Natural History (first undergraduate student invited to deliver a public gallery talk)

OTHER SKILLS AND EXPERIENCE

Museum work:

- Research internships: American Museum of Natural History (2014-2016, Herpetology); U.S. National Museum of Natural History (Summer 2018, Mammalogy); Yale Peabody Museum of Natural History (Summer 2018, Mammalogy)
- *Collection visits*: U.S. National Museum of Natural History (2019); Harvard Museum of Comparative Zoology (2019); Yale Peabody Museum of Natural History (2019); Field Museum of Natural History (2019); Natural History Museum, London (2019, 2023); American Museum of Natural History (2019)
- *Employment*: Yale Peabody Museum of Natural History (2016-2020, Invertebrate and Vertebrate Paleontology Collections Assistant); University of Alaska Museum (2022–, Mammalogy Research Technician)

Field work:

• *Southeast Alaska, USA*: Collected hoary marmots and bumble bees from remote alpine regions for the University of Alaska Museum (July 2022, July 2023).

Editor:

• *Editor-in-Chief*, The Scholar, Gates Cambridge Council (*thescholar.online* and *Spotify*): Oversaw the production of the Gates Cambridge community's annual magazine, which includes articles, photo essays, videos, and podcast contributions from current scholars and alumni (2022–2023).

Reviewer: iScience (2023), Journal of Mammalogy (2023), PLoS ONE (2022), Philippine Journal of Science (2022)

Languages: English, Spanish (proficient), Hindi (read/write), Malayalam (read/write)

Software: R, Python, ArcGIS, EMu, FileMaker, ImageJ, Adobe InDesign and Photoshop

Professional Affiliations: American Society of Mammalogists (2019–), British Ecological Society (2022–)