

Maya Juman

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EDUCATION

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

Fall 2022 – Present

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

May 2020

PEER-REVIEWED PUBLICATIONS

7. Olson, L.E.*, **Juman, M.M.*** (*accepted*) Host taxonomy is critical in zoonotic disease surveillance and reporting. *Journal of Wildlife Diseases*. (*both authors contributed equally to this work)
6. **Juman, M.M.**, Olson, L.E., Sargis, E.J. (*in press*) Craniometric variation and taxonomic boundaries in the Madras Treeshrew (Scandentia, Tupaiidae: *Anathana ellioti* [Waterhouse, 1850]) from India. *Journal of Mammalian Evolution*.
5. **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.
4. **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.
3. **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.
2. **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.
1. 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.

MANUSCRIPTS IN PREPARATION

Juman, M.M., Gibson, L., Suu-Ire, R., Languon, S., Quaye, O., Fleischer, G., Asumah, S., Jolma, R., Gautam, A., Laing, E., Wood, J.L.N., Cunningham, A.A., Restif, O. Ecological and reproductive cycles drive henipavirus seroprevalence in Straw-Coloured Fruit Bats. Expected submission by end of January 2024.

RESEARCH PRESENTATIONS

Juman, M.M., Restif, O. Seasonal and spatial patterns of henipavirus seroprevalence in Straw-Coloured Fruit Bats (*Eidolon helvum*). **British Ecological Society Annual Meeting**, Belfast, Northern Ireland (12/15/2023).

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

Juman, M.M., Woodman, N., Miller-Murthy, A., Olson, L.E., Sargis, E.J. Taxonomic boundaries in Lesser Treeshrews. **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. **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. **Meeting of the American Society of Mammalogists**, Washington, D.C. (6/29/2019).

IUCN RED LIST ASSESSMENTS

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

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

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

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

FELLOWSHIPS, GRANTS, AND AWARDS

Accelerate-C2D3 (Cambridge Centre for Data-Driven Discovery) Research and Innovation Grant (£9,303) <i>Harnessing AI to unlock natural history collections for zoonotic surveillance</i>	2023
Gates Cambridge Scholarship (full PhD tuition + £20,000/year stipend)	2022 – 2026
NSF Graduate Research Fellowship (\$138,000, <i>declined</i>)	2022
Fulbright U.S. Student Research Fellowship to Malaysia (\$18,000, <i>postponed due to COVID-19</i>)	2021
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
Karen L. Von Damm Undergraduate Research Fellowship (\$3,784), Yale Earth & Planetary Sciences	2017

TEACHING

Part I Pathology: Mathematical Biology , University of Cambridge <i>Demonstrator (assessed students' R code for a practical assignment on epidemiological modeling)</i>	Easter Term 2023
Part II Zoology L1: Mammalian Evolution and Comparative Anatomy , University of Cambridge <i>Supervisor (led specimen-based small group teaching for third-year undergrads, provided writing feedback)</i>	Lent Term 2023
S&DS S230: Data Analysis and Exploration , Yale University <i>Teaching assistant (held office hours, graded assignments, demonstrated R code)</i>	Summer 2020
ANTH S242: Human Evolutionary Biology , Yale University <i>Writing fellow (served as primary writing resource for 90 students)</i>	Summer 2020

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 weekly 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.

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.

OUTREACH

Skype a Scientist 2023 – Present

Guest scientist (discusses research and STEM career pathways with U.S. public high school biology students)

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 bilingual science-themed letters to middle schoolers in underserved U.S. 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 schoolers)

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 investigated 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”** 1/25/2022
Philadelphia Department of Public Health
- “Scientific and Cultural Uses of Cephalopod Ink”** 2/13/2020
Yale Peabody Museum of Natural History (first undergraduate student to deliver a public gallery talk)

OTHER SKILLS AND EXPERIENCE

Museum work:

- *Research internships*: American Museum of Natural History (2014-2016, Herpetology); Smithsonian National Museum of Natural History (Summer 2018, Mammalogy); Yale Peabody Museum of Natural History (Summer 2018, Mammalogy)
- *Collection visits*: Smithsonian 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](https://open.spotify.com/show/18333333333333333333)): 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–)