CURRICULUM VITÁE

Advait Mahesh Jukar

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Gaylord Donnelley Postdoctoral Associate
Yale Institute for Biospheric Studies and
Department of Anthropology
Yale University
New Haven, CT 06520

Research Associate
Department of Paleobiology
National Museum of Natural History
Smithsonian Institution
Washington, D.C., 20013

INTERESTS

Macroecological patterns of body-size through time, megafaunal extinctions, mammalian taxonomy and biogeography, conservation ecology, science policy, science education and communication.

EDUCATION

George Mason University, Fairfax, VA, USA
Ph.D., Environmental Science and Policy, 2018
Advisors: Dr. Mark D. Uhen & Dr. S. Kathleen Lyons
Committee: Dr. Thomas E. Lovejoy, Dr. Stacey Verardo

M.S., Environmental Science and Policy, 2014
Advisor: Dr. Thomas E. Lovejoy
Committee: Dr. Jeremy B.C. Jackson, Dr. Nancy Knowlton, & Dr. Chris Kennedy

Reed College, Portland, OR, USA
B.A., Biology, 2011
Advisor: Dr. Robert H. Kaplan

ACADEMIC APPOINTMENTS

Gaylord Donnelley Postdoctoral Associate in Environmental Science, Yale Institute for Biospheric Studies and Department of Anthropology, Yale University, New Haven, CT July 2020-present

Research Associate, Department of Paleobiology, National Museum of Natural History, Smithsonian Institution, Washington D.C. May 2020-present

Member, Senate of Scientists, National Museum of Natural History, Smithsonian Institution, Washington D.C.

Deep Time – Peter Buck Fellow, Department of Paleobiology, National Museum of Natural History, Smithsonian Institution, Washington D.C. June 2018-May 2020

Affiliate Faculty Member, Department of Atmospheric, Oceanic and Earth Sciences, George Mason University, Fairfax, VA. December 2018-present

Research Associate, Department of Paleobiology, National Museum of Natural History, Smithsonian Institution, Washington D.C. October 2015-May 2018

AWARDS

2019 Science Achievement Award, National Museum of Natural History, Smithsonian Institution

2017 Best Student Poster, International Biogeography Society

2011 President's Commendation for Academic Excellence, Reed College

2010 Dr. Hildegard Lamfrom Memorial Scholarship, Reed College

FUNDING: Total $422,039

RESEARCH FELLOWSHIPS: Total $395,539

Gaylord Donnelley Postdoctoral Fellowship, Yale Institute for Biospheric Studies, Yale University, present
Awarded to conduct research on human-animal interactions during the late Pleistocene through the Anthropocene in India.
Fellowship amount: $134,000

MacMillan Fund Field Research Grant, National Museum of Natural History, Smithsonian Institution, 2019-2020
Awarded to conduct field research on Middle Jurassic sauropods in Kutch, India.
Grant amount: $12,439

Deep Time – Peter Buck Fellowship, National Museum of Natural History, Smithsonian Institution, Fall 2018-Spring 2020
Awarded for Postdoctoral research in the Department of Paleobiology. My research includes the analysis of Mesozoic and Cenozoic herbivores to understand changes in the structure of the herbivore guild through time. I am also associated with the new Deep Time Fossil Exhibit and will be developing educational and outreach activities for the new fossil halls.
Fellowship amount: $112,800

2017 Summer Research Fellowship, George Mason University, Summer 2017
Awarded to conduct dissertation research over the summer of 2017.
Fellowship amount: $7000.

Max and Vera Britton Environmental Science Award, Cosmos Scholars Grant, 2017
Awarded to conduct research on Plio-Pleistocene mammals from the Indian Subcontinent using museum collections in India.
Grant amount: $3000

Graduate Research Assistantship with the Provost's Office, George Mason University, Summer 2016-Spring 2018
Awarded to conduct institutional research for the Provost's Office. The assistantship includes a stipend of $51,000.

Provost Fellowship, Graduate Research Assistantship, George Mason University, Fall 2013-Spring 2016
Awarded for dissertation research.
Fellowship amount: $65,000

Betty C. Liu Biology Summer Post-Bac Fellowship, Reed College, 2011
Awarded for independent research on the effects of human activity on the development and conservation of *Bombina orientalis* in the Republic of Korea and to work as a summer research assistant for Dr. Robert Kaplan.
Fellowship amount: $5300.

Arch and Fran Diack Field Research Fellowship, Reed College, 2009
Awarded for independent research on the effects of rice paddy agriculture and thermal variance on the development of *Bombina orientalis* in the Republic of Korea and to work as a summer research assistant for Dr. Robert Kaplan.
Fellowship amount: $5000

TRAVEL: Total $1600
Graduate Student Travel Fund, George Mason University, Summer 2017
Awarded to attend the Society for Vertebrate Paleontology's annual meeting in Calgary, Canada.
Grant amount: $1000.

Benson Funds, Smithsonian Institution, Summer 2017
Awarded to attend the Ecological Society of America's annual meeting in Portland, OR.
Grant amount: $450.

Graduate Student Travel Fund, George Mason University, Summer 2015
Awarded to attend the Ecological Society of America's annual meeting in Baltimore, MD.
Grant amount: $150.

TEACHING ASSISTANTSHIPS: Total $24,900

Graduate Teaching Assistantship, George Mason University, Summer 2013
Awarded to teach laboratory sessions of the *Introductory Biology I* courses. The assistantship includes a stipend of $1900.

Graduate Teaching Assistantship, George Mason University Fall 2012-Spring 2013
Awarded to teach laboratory sessions of the *Introductory Biology I* and *II* courses. The assistantship includes an annual stipend of $14,000.

Graduate Assistantship, Marshall University, Fall 2011-Spring 2012
Awarded to teach laboratory sessions of Biology courses at Marshall University. The assistantship includes an annual stipend of $9000.

PEER REVIEWED PUBLICATIONS

Published (14)

2020 Turvey, S., V. Sathe, J. J. Crees, **A. M. Jukar**, P. Chakraborty, A. M. Lister. Late Quaternary megafaunal extinctions in India: how much do we know? Quaternary Science Reviews.

Jukar, A. M., S. K. Lyons, P. J. Wagner, M. D. Uhen. Late Quaternary extinctions in the Indian Subcontinent. Palaeogeography, Palaeoclimatology, Palaeoecology.

Fraser, D., L. C. Soul, A. B. Tóth, M. A. Balk, J. T. Eronen, S. Pineda-Munoz, A. B. Shupinski, A. Villaseñor, W. A. Barr, A. K. Behrensmeyer, A. Du, J. T. Faith, N. J. Gotelli, G. R. Graves, **A. M. Jukar**, C. V. Looy, J. H. Miller, R. Potts, S. K. Lyons. Investigating biotic interactions in Deep Time. Trends in Ecology and Evolution.

Pineda-Munoz, S., **A. M. Jukar**, K. Amantagelo, M. Balk, W. A. Barr, A. K. Behrensmeyer, J. Blois, M. B. Davis, A. Du, J. Eronen, D. L. Fraser, N. J. Gotelli, C. Looy, J. Miller, A. Shupinski, L. Soul, A. Toth, A. Villaseñor, S. Wing, S. K. Lyons. Body mass-related changes in mammal community assembly patterns during the late Quaternary of North America. Ecography.

Wang, X., **A. M. Jukar**, Z. J. Tseng, Q. Li. Dragon bones from the heavens: European explorations and early paleontology in the Zanda Basin of Tibet, retracing the type locality of *Qurliqnoria hundesiensis* and *Hipparion* (*Plesiohipparion*) *zandaense*. Historical Biology.

Singh, N. P., **A. M. Jukar***, R. Patnaik, M. Sharma, N. A. Singh, Y. P. Singh. The first occurrence of *Deinotherium indicum* (Mammalia, Proboscidea, Deinotheriidae) from the late Miocene of Kutch, India. Journal of Paleontology. ***corresponding author and co-first**

author

2019 **Jukar, A. M.**, R. Patnaik, P. R. Chauhan, H-C Li, J-P, Lin. The youngest specimen of *Hexaprotodon* Falconer and Cautley, 1836 (Hippopotamidae, Mammalia) from South Asia with a discussion on its extinction. Quaternary International.528: 130-137.

Tóth, A. M., S. K. Lyons, W. A. Barr, A. K. Behrensmeyer, J. L. Blois, R. Bobe, M. Davis, A. Du, J. T. Eronen, J. T. Faith, D. Fraser, N. J. Gotelli, G. R. Graves, **A. M. Jukar**, J. H. Miller, S, Pineda-Munoz, L. C. Soul, A. Villaseñor, J. Alroy. Reassembly of surviving mammalian communities after the end-Pleistocene megafaunal extinction. Science. 365 (6459): 1305-1308.
AWARD: 2019 Science Achievement Award, National Museum of Natural History, Smithsonian Institution.

Jukar, A. M., B. Sun, A. C. Nanda, R. L. Bernor. The first occurrence of *Eurygnathohippus* van Hoepen, 1830 (Mammalia, Perissodactyla, Equidae) outside Africa and its biogeographic significance. Bollettino della Società Paleontologica Italiana. 58 (2): 171-179.

Bernor, R. L., O. Cirilli, **A. M. Jukar**, R. Potts, M. Buskianidze, L. Rook. Evolution of early *Equus* in Italy, Georgia, the Indian Subcontinent, East Africa, and the origins of African zebras. Frontiers in Ecology and Evolution. 7.

Rook, L., R. L. Bernor, L. Avilla, O. Cirilli, L. Flynn, **A. M. Jukar**, W. Sanders, E. Scott, X. Wang. Mammal biochronology (land mammal ages) around the world from the Late Miocene to Middle Pleistocene and major events in horse evolutionary history. Frontiers in Ecology and Evolution. 7.

2018 **Jukar, A. M.**, B. Sun, R. L. Bernor. The first occurrence of *Plesiohipparion huangheense* (Qiu, Huang & Guo, 1987) (Equidae, Hipparionini) from the Pliocene of India. Bollettino della Società Paleontologica Italiana. 57 (2): 125-132.

Jukar, A. M., S. K. Lyons, M. D. Uhen. A cranial correlate of body mass in proboscideans. Zoological Journal of the Linnean Society. 184 (3): 919-931.

2013 Arrighi, J. M., E. S. Lencer, **A. Jukar**, D. S. Park, P. C. Phillips, R. H. Kaplan. Daily temperature fluctuations unpredictably influence developmental rate and morphology at a critical early larval stage in a frog. BMC Ecology. 13:18

In Prep (5)

Jukar, A. M. and N. Solounias. A reassessment of some Giraffidae specimens from the late Miocene of Eurasia.

Jukar, A. M., S. K. Lyons, M. D. Uhen. Turnover of Siwalik herbivorous mammals during the Plio-Pleistocene.

Jukar, A. M., S. K. Lyons, M. D. Uhen. Effect of topographic heterogeneity on mammalian assemblage turnover in the late Quaternary of North America.

Jukar, A. M. and A. Lister. Morphological variation in Siwalik Elephantidae.

Fraser, D., A. Villaseñor, Tóth, A., M. Balk, J.T. Eronen, W. A. Barr, A.K. Behrensmeyer, M. Davis, A. Du, J.T. Faith, N.J. Gotelli, G.R. Graves, **A.M. Jukar**, C.V. Looy, B.J. McGill, J.H. Miller, S. Pineda-Munoz, R. Potts, A.B. Shupinski, L.C. Soul, and S.K. Lyons. Profound Holocene biotic homogenization of North American mammalian faunas.

THESES AND DISSERTATIONS

2018 Temporal Turnover in Late Neogene and Quaternary Mammal Assemblages. Ph.D. Dissertation. Department of Environmental Science and Policy, George Mason University. Fairfax, VA.

2014 Associations Between Herbivore Functional Group Diversity and Density and Ecosystem Functioning in the Caribbean. M.S. Thesis. Department of Environmental Science and Policy, George Mason University. Fairfax, VA.

2011 Variation in Developmental Patterns in Two Geographically Separated Populations of *Bombina orientalis* in the Republic of Korea. B.A. Thesis. Department of Biology, Reed College. Portland, OR.

CONFERENCE ABSTRACTS

2020 **Jukar A. M.**, N. P. Singh, R. Patnaik, M. Sharma, N. A. Singh, Y. P. Singh. The first occurrence of *Deinotherium indicum* (Mammalia, Proboscidea, Deinotheriidae) from the late Miocene of Kutch, India. Society of Vertebrate Paleontology 79th Annual Meeting, Cincinnati, OH, 12-17 October.

2019 Cirilli, O., **A. M. Jukar**, R. Potts, L. Rook, R. L. Bernor. The deep time origin of African zebras through the Eurasian "Equus stenonine" lineage. Society of Vertebrate Paleontology 79th Annual Meeting, Brisbane, Australia, 9-12 October.

Jukar, A. M., M. T. Carrano. The structure of the mammalian and dinosaurian herbivore guild. Society of Vertebrate Paleontology 79th Annual Meeting, Brisbane, Australia, 9-12 October.

Jukar, A. M., S. K. Lyons, P. J. Wagner, M. D. Uhen. Late Quaternary Extinctions in India. North American Paleontological Convention, Riverside, CA, June 23-27.

Tóth, A. M., S. K. Lyons, **A. M. Jukar**, A. Du, W. Barr, A. Villaseñor, A. K. Behrensmeyer, D. Fraser, J. Miller, L. Soul, N. Gotelli, S. Pineda-Munoz, J. Blois, M. Davis, J. Eronen, J. T. Faith, J. B. Alroy. The end-Pleistocene megafaunal extinction caused a fundamental shift in survivor mammal community structure. International Biogeography Society 2019 Meeting, Malaga, Spain, January 8-12.

2018 **Jukar, A. M.** Diversity and biogeography of South Asian Pliocene hipparionine horses. Society of Vertebrate Paleontology 78th Annual Meeting, Albuquerque, NM, October 17-20.

Tóth, A. M., S. K. Lyons, **A. M. Jukar**, A. Du, W. Barr, A. Villaseñor, A. K. Behrensmeyer, D. Fraser, J. Miller, L. Soul, N. Gotelli, S. Pineda-Munoz, J. Blois, M. Davis, J. Eronen, J. T. Faith, J. B. Alroy. The end-Pleistocene megafaunal extinction caused a shift in mammal community structure. Society of Vertebrate Paleontology 78th Annual Meeting, Albuquerque, NM, October 17-20.

Bernor, R. L., O. Cirilli, **A. M. Jukar**, R. Potts, B. Sun, S. Wang. The Eurasian *Equus* datum and early evolution of the genus in Eurasia. Society of Vertebrate Paleontology 78th Annual Meeting, Albuquerque, NM, October 17-20.

2017 **Jukar, A. M.** Faunal change in the Plio-Pleistocene of the Indian Subcontinent. International Biogeography Society 2017 Meeting, Bangalore, India, September 26-28, 2017. A 5 minute lightning talk accompanies this poster.
AWARD: Best Student Poster.

Jukar, A. M. Late Quaternary Extinctions in South Asia. Society of Vertebrate Paleontology 77th Annual Meeting, Calgary, Canada, August 23-26, 2017.

Jukar, A. M. Megafaunal extinction in South Asia: challenges and prospects. Ecological Society of America Annual Meeting, Portland, OR, August 6-12, 2017.

Pineda-Munoz, S., **A. M. Jukar,** ETE Working Group, S. K. Lyons. Human Impact on North American Mammal Faunas from the Pleistocene. Ecological Society of America Annual Meeting, Portland, OR, August 6-12, 2017.

Jukar, A. M. India's missing megafauna: the megafaunal extinction in South Asia. University of Pennsylvania-Smithsonian Geobiology Symposium 25. Washington D.C., February 24, 2017.

2016 **Jukar, A. M.**, Turnover of Large Herbivorous Mammals in the Indian Subcontinent during the Plio-Pleistocene. Society of Vertebrate Paleontology 76th Annual Meeting, Salt Lake City, UT, October 26-29, 2016.

Pineda-Munoz, S., **A. M. Jukar**, ETE Working Group, S. K Lyons. Human Impact on North American Mammal Faunas. Society of Vertebrate Paleontology 76th Annual Meeting, Salt Lake City, UT, October 26-29, 2016.

Jukar, A. M. Occipital condyle width predicts body mass in proboscideans. 11th International Congress of Vertebrate Morphology, Bethesda, MD, June 30, 2016.

2015 **Jukar, A. M.** Temporal turnover of mammal communities in response to climate change in different topographical landscapes. Ecological Society of America Annual Meeting, Baltimore, MD, August 11, 2015.

2011 Jacoby, S. M., Z. Y. Weinberg, M. J. Davis, E. P. Coston, L. M. Dono, D. A. Fennelly, E. L Fong, M. C. French, W. W. Gester, C. C. Gray, A. G Johnson, **A. M. Jukar,** M. L. Moeller, L. M. Schuette, T. P. Hackenberg, & P. J. Currie. Central nervous system effects of ghrelin on memory acquisition, reward, and anxiety-like behavior. Program No. 266.23. 2011 Neuroscience Meeting, Washington, DC, November 12-16, 2011.

2009 Gonyer, K.M., **A. M. Jukar**, L. O. Frishkoff, R. H. Kaplan. The effects of human disturbance on geographic variation and local adaptation in the Oriental fire-bellied toad (*Bombina orientalis*). Reed College "Student Summer Research Presentations: A poster session". Reed College, Portland, OR. September 11, 2009.

INVITED TALKS

2020 The last 200 years of Megafaunal Extinction Research in India. University of Texas–Austin, November 5.

The Past, Present, and Future of Megafaunal Extinction Research in India. Yale Institute for Biospheric Studies, October 2.

Extinction of the Megabeasts: A 50,000 year whodunnit. National Museum of Natural History, Smithsonian Institution. September 24.

Changes in the mammalian herbivore assemblage during the Late Neogene and Quaternary of South Asia. Indian Institute of Science Education and Research, Pune. September 17.

Nineteenth century fossil hunting in the Indian Subcontinent. Geological Society of Washington. Washington, D.C., USA. February 26.
AWARD: 2nd place for best talk of the year.

2019 Structure of the herbivore guild through time. Moravian College. Bethlehem, PA, USA. December 9.

Mammalian community ecology in the Pliocene and Pleistocene of the Indian Subcontinent. Natural History Research Experiences. National Museum of Natural History, Smithsonian Institution. Washington, D.C., USA. June 14.

Mammalian community change in the Pliocene and Pleistocene of India. Paleontological Society of Washington. Washington, D.C., USA. April 21.

The mastodon: a truly American icon. National Museum of Natural History, Smithsonian Institution. Washington, D.C., USA. April 14.

2017 Plio-Pleistocene Mammal Faunas of the Indian Subcontinent: Collecting History and Recent Advances. Department of Earth Sciences, Natural History Museum, UK. London, UK. June 28.

Evolution of Large Herbivore Communities in the Indian Subcontinent during the Plio-Pleistocene. Department of Geology, Panjab University, Chandigarh, India. March 10.

TEACHING EXPERIENCE

Lecturer: Comparative Vertebrate Anatomy Dissection Series, National Museum of Natural History, Smithsonian Institution, Fall 2019
Developed a four-day course on vertebrate anatomy using animal dissections.

Lecturer: Natural History Research Experiences Internship Program, National Museum of Natural History, Smithsonian Institution, Spring 2018
Developed a lecture on the methods in paleoecology using South Asian mammal communities as a case study for undergraduate student interns.

Lecturer: Deep Time Volunteer Training Program, National Museum of Natural History, Smithsonian Institution, Spring 2018
Developed curricular material and lectures on the evolution of proboscideans and birds for the National Museum of Natural History Deep Time volunteers.

Assistant Lecturer: Vertebrate Paleontology, George Mason University, Spring 2016- Spring 2018
Assisted Dr. Mark D. Uhen and lectured on a variety of topics ranging from Palaeozoic fish to dinosaurs.

Guest Lecturer: Osher Lifelong Learning Institute of American University, April 26, 2018
Megafaunal extinctions. Lecture for the course *The Sixth Extinction: Are we there yet?*

Guest Lecturer: Osher Lifelong Learning Institute of American University, April 25, 2016
Vertebrate Evolution in the Cambrian. Lecture for the course *The Cambrian Explosion: Body Plans for Life*

Guest Lecturer: Osher Lifelong Learning Institute of American University, April 27, 2015
Mesozoic Extinctions. Lecture for the course *Dinosaurs for Adults: A Study in Evolution*

Teaching Assistant (Instructor of Record): Introductory Biology I, George Mason University, Summer 2013
Taught three laboratory sections of the *Introductory Biology I* course in the undergraduate biology program at George Mason University, Fairfax, VA, USA.

Teaching Assistant (Instructor of Record): Introductory Biology II, George Mason University, Spring 2013
Taught three laboratory sections of the *Introductory Biology II* course in the undergraduate biology program at George Mason University, Fairfax, VA, USA.

Teaching Assistant (Instructor of Record): Introductory Biology I, George Mason University, Fall 2012
Taught three laboratory sections of the *Introductory Biology I* course in the undergraduate biology program at George Mason University, Fairfax, VA, USA.

Teaching Assistant (Instructor of Record): Principles of Biology for Majors, Marshall University, Spring 2012
Taught two laboratory sections of the *Principles of Biology for Majors* course in the department of Biological Sciences at Marshall University, Huntington, WV, USA.

Marshall University Department of Biological Sciences Tutor, Spring 2012
Tutor students of the biological sciences course, *Principles of Biology for Majors*.

Teaching Assistant (Instructor of Record): Human Biology for Non-majors, Marshall University, Fall 2011
Taught three laboratory sections of the *Human Biology for Non-Majors* course in the department of biological sciences at Marshall University, Huntington, WV, USA.

Marshall University Department of Biological Sciences Tutor, Fall 2011
Tutor students of the biological sciences for the course, *Human Biology for Non-Majors*

MENTORSHIP

YES Intern Career Mentor, National Museum of Natural History, Smithsonian Institution, Summer 2019.

Smithsonian Institution Internship Program Career Mentor, National Museum of Natural History, Smithsonian Institution, Summer 2018.

Graduate Student Coordinator and Lead Student Mentor, Center for Biodiversity and Sustainability, George Mason University, Fall 2013-Spring 2018.

FIELD EXPERIENCE

2018-present Mesozoic of Appalachia Project

Assisted in the collection of microvertebrates from the Campanian Ellisdale Site in New Jersey and the Hannahhatchee Creek locality in Georgia.

2016 Judith River Formation Dinosaur Excavation

Excavated two dinosaur skeletons from the Judith River Formation in Montana with a team from the National Museum of Natural History led by Dr. Matthew T. Carrano. Excavated specimens, prepped fossils in the field, constructed plaster jackets, and drew quarry maps and stratigraphic columns.

2011 Post-Baccalaureate research, Reed College

Awarded the Betty C. Liu Biology Summer Post-Bac Fellowship to study the effects of varying levels of daily thermal fluctuations on the development, morphology and performance of *Bombina orientalis* larvae in the Republic of Korea using common garden experiments.

2010 Indian Mesozoic Mammal Project

Worked with Dr. Gregory Wilson (University of Washington) in the field in India exploring vertebrate fauna of the southern infra and intertrappean beds. I assisted in the excavation of eggshells from an infratrappean bed near the city of Hyderabad.

2009 Summer research internship, Reed College

Conducted research on the population dynamics of two field populations of *Bombina orientalis* in the Republic of Korea using common garden experiments to study the effects of human disturbance on the geographic variation, genetic variation and local adaptation in *Bombina orientalis*, the oriental fire bellied toad.

SYNERGISTIC ACTIVITIES

Evolution of Terrestrial Ecosystems (ETE) Program, National Museum of Natural History, Smithsonian Institution, 2015-present
I have been a member of ETE, a collaborative working group of ecologists, paleoanthropologists, and paleobiologists. Since 2015, we have explored long-term patterns in community assembly, which has produced several publications and conference presentations, along with a book on the *Foundations of Paleoecology*.

National Public Radio (NPR) Science Friday Summer Institute, August 2020
I participated in the 2020 Science Friday Summer Institute as a science expert to help teachers develop phenomena-based educational material for their students that adhered to the Next Generation Science Standards using my research on megafaunal extinctions.

Exhibition Consultant, "Alexander von Humboldt and the United States: Art, Nature, and Culture", Smithsonian American Art Museum and Renwick Gallery, February 2020
Assisted with the curation of the Peale Mastodon skeleton, providing historical and paleobiological insights.

International Advisor, The Indian Museum of the Earth, 2019-present.
I consult for the Indian Government and the committee to establish a paleobiology focused museum in India.

Exhibition Consultant, "Elephants and Us: Considering Extinction", National Museum of American History, Smithsonian Institution, September 2019
Assisted with the fossil proboscidean displays, providing anatomical and paleobiological insights.

Organizer of the Paleobiology and Ecology Reading Group, Department of Paleobiology, National Museum of Natural History, Smithsonian Institution, Fall 2014-present
I have organized the Department of Paleobiology's weekly paleoecology journal club since 2014 and the paleobiology journal club since 2018.

Media Engagements, 2018-present
I have regularly commented on science articles in The Atlantic, Smithsonian Magazine, Mongabay India, and have had my research covered in The Times of India, Yale News, The Hindu, and The Print India.

SCIENCE EDUCATION AND PUBLIC OUTREACH

2020 **Deep Time Education and Outreach, June 2018-May 2020**
I develop educational activities for the new David H. Koch Hall of Fossils and Deep Time initiative using fossils, 3D printed objects, and games. I also actively participate and develop activities for museum visitors for Fossil Family Days, and Expert is in events.

Fossil Friday Webinar, National Museum of Natural History, Smithsonian Institution, Washington D.C., April 2020
Developed distance learning content for the National Museum of National History on "Ancient Elephants and their Modern Relatives"

Nerd Nite DC, Washington D.C., April 2020
Invited to lecture on the history of mastodon discoveries in the United States to an audience of adults in Washington D.C.

Dissecting the Tree of Life co-director, National Museum of Natural History, Smithsonian Institution, Washington D.C., June 2019-May 2020
I developed and co-lead a public education activity at the Smithsonian's National Museum of Natural History on the live dissection of animals for the public.

Social Media Content Developer, National Museum of Natural History, Smithsonian Institution, Washington D.C., June 2018-May 2020
Develop social media content on evolution and paleontology for the National Museum of Natural History, and Smithsonian Institution.

Fossil Friday Webinar, National Museum of Natural History, Smithsonian Institution, Washington D.C., April 2020
Developed digital educational content including online activities on the evolution of elephants for an audience ranging from kindergarten to adults.

Science Education Observer, McClung Museum of Natural History and Culture, University of Tennessee, February 2020
Represented the National Museum of Natural History at the McClung Museum's Fossil Fest and observed how activities I helped develop were being used at one of the Smithsonian's partner institutions.

2019 **Smithsonian Science How, National Museum of Natural History, Smithsonian Institution, Washington D.C., December 2019**
Developed educational content on the evolution of proboscideans for an audience ranging from kindergarten to adults and delivered two webcasts on the topic.

Lineage Project, National Museum of Natural History, Smithsonian Institution, Washington D.C., June 2018-December 2019
Part of a team developing activities showcasing the evolution of proboscideans and avians. Goals are to highlight the salient features of evolution — non linearity, descent from a common ancestor, diversity through time, contingency — using fossil specimens to an audience aged 8-12.

Science Education Observer, University of Nebraska State Museum, September 2019
Represented the National Museum of Natural History at the University of Nebraska State Museum's Fossil Family Trees event and observed how activities I helped develop were being used at one of the Smithsonian's partner institutions.

Smithsonian Science How, National Museum of Natural History, Smithsonian Institution, Washington D.C., May 2019
Developed educational content on the evolution of proboscideans for an audience ranging from kindergarten to adults and delivered two webcasts on the topic.

Nerd Nite DC, Washington D.C., March 2019
Invited to lecture on the history of mastodon discoveries in the United States to an audience of adults in Washington D.C.

2018 **National Fossil Day, National Mall, Washington D.C., September 2018**
Volunteered with the Society of Vertebrate Paleontology and National Museum of Natural History to educate visitors on the importance of fossils and public lands.

2017 **National Fossil Day, National Mall, Washington D.C., September 2017**
Volunteered with the Society of Vertebrate Paleontology to educate visitors on the importance of fossils and public lands.

ETE 30th Anniversary Celebration Public Science Event, National Museum of Natural History, Smithsonian Institution, Washington D.C., March 2017
Developed and set up a fossil display table to educate visitors about the megafaunal extinction in North America.

2016 **National Fossil Day, National Museum of Natural History, Smithsonian Institution, Washington D.C., September 2016**
Helped set up a fossil display table to educate visitors on fossils and the process of fossilization.

Scientist Is In **at the National Museum of Natural History, Smithsonian Institution, Washington D.C., August 2016**
Public outreach event where I designed an educational interactive activity on megafaunal extinctions in the Washington D.C. area.

Guest Panelist, DC Environmental Film Festival, National Museum of Natural History, Smithsonian Institution, Washington D.C., February 2016
Invited speaker in a panel for the film India's Wandering Lions which was featured at the 2016 DC Environmental Film Festival.

2015 **Virtual tour of Fossilab research using Periscope and Twitter, National Museum of Natural History, Smithsonian Institution, Washington D.C., March 2015**
Was interviewed by the NMNH social media team using Periscope on the research and curatorial support that Fossilab volunteers undertake for the Paleobiology Department.

Biodiversity Heritage Library Research using Periscope and Twitter, National Museum of Natural History, Smithsonian Institution, Washington D.C., March 2015
Was interviewed by Biodiversity Heritage Library Staff using Periscope on the use of the library in paleontological research. Discussed how these resources benefit scientists at the museum and how it has impacted my own work.

2013 **Public Lecture: *Mass Extinctions*. Evening Under the Stars Talk. George Mason University, Fairfax, VA, November 2013**

Scientific Volunteer Teacher's Night at the Smithsonian, National Museum of Natural History, Smithsonian Institution, Washington DC, September 2013
Displayed Lance Formation microfossils and interacted with visiting teachers and discussed the importance of these fossils for paleoecological analyses.

Public Lecture: *Feathered Dinosaurs: On the Origin and Early Evolution of Birds*. Evening Under the Stars Talk. George Mason University, Fairfax, VA, May 2013

2012 **Paleobiology volunteer at the National Museum of Natural History, Smithsonian Institution, Washington DC, August 2012-June 2014**
Volunteer in the Fossilab to classify micro-vertebrate fossils from the Lance Formation. Position held from 2012-2014.

2011 **Public Lecture: *Complex interactions between diel thermal fluctuations and maternal effects drive morphological adaptation to local environments*. S.T.A.R. Lectures: Students Talking About Research. Reed College, Portland, OR., May 2011**

2008 SEEDS program at Reed College, Portland, OR., February 2008
Helped restore wetland habitat at Oaksbottom Wildlife Refuge in Portland, OR.

NON-ACADEMIC PROFESSIONAL ACTIVITIES

Deep Time Exhibition Internship, National Museum of Natural History, Smithsonian Institution, Summer 2015
Conducted research to update specimen information for the new fossil halls. Updated information for vertebrate, invertebrate and plant fossils, on formation, age range, taxonomic identity, and locality using a variety of literature sources, the Paleobiology Database, and museum records. Assisted and collaborated with curators in the Department of Paleobiology.

Encyclopedia of Life Internship, National Museum of Natural History, Smithsonian Institution, Summer 2014
Wrote 26 articles on extinct species for the Encyclopedia of Life and the National Museum's Deep Time Initiative. Worked as an encyclopedia curator, and wrote and curated articles on species that are housed in the exhibits and collections of the museum, along with other species of interest.

TECHNICAL AND COMPUTER SKILLS

JMP statistical analysis software, PAST, ArcGIS, R, Microsoft Office

LAB AND TECHNICAL EXPERIENCE

Smithsonian Institution's National Museum of Natural History, 2012-2018
Fossil preparation at the National Museum of Natural History, Smithsonian Institution, Washington DC, since October 2012. Have experience using air scribes to prepare vertebrate and plant fossils, sort and classify microvertebrate fossils, and will soon be qualified to use Emu Collection Management Software.

George Mason University, Spring 2013-Spring 2014
Fossil preparator in Dr. Mark D. Uhen's lab at George Mason University.

Reed College, 2007-2011
Lab Manager: Assistant and lab technician in Dr. Robert Kaplan's lab managing the care, breeding and development of *Bombina orientalis*. Responsible for managing Dr. Kaplan's lab from June 2010-May 2011. Dr. Kaplan's research includes developmental plasticity, ecology and evolution of amphibians.

Stockroom Assistant: Worked for the biology department stockroom for four years. Responsible for solution preparation using both sterile and non-sterile techniques, preparation and set up of

introductory and upper division biology labs, making gels and agar plates, assisting students and maintaining inventories.

Animal Care Specialist: Managed lab animals such as *Xenopus laevis*, guppies, electric fish, crickets, crayfish and salamanders in the biology department for the last four years. Responsibilities include feeding, maintaining cleanliness of animal enclosures and disposal of deceased animals.

Field Technician: Worked for the biology department for the last four years as a field technician setting up field sites for the introductory biology course in the Reed college canyon and performing initial surveys for field experiments including stickleback surveys in the Reed canyon.

SERVICE

Journal referee: Historical Biology, Quaternary Science Reviews, Nature Scientific Data, Arabian Journal of Geosciences, PeerJ, Quaternary International, Journal of Archaeological Science, Science, PNAS.

Education and Outreach Committee member, Society of Vertebrate Paleontology, 2020-present

Government Affairs Committee member, Society of Vertebrate Paleontology 2020-present.

Colbert Prize Committee member, Society of Vertebrate Paleontology, 2019-present.

Environmental Science and Policy Graduate Student Association Vice President, George Mason University, Fall 2014-Spring 2015.

Animal Care Committee, Reed College, Spring 2010-Spring 2011.

International Student Advisory Board, Reed College, Fall 2008-Spring 2009.

ACADEMIC SOCIETIES

Society for Conservation Biology, 2020-Present
Paleontological Society, 2018-Present
American Society of Mammalogists, 2017-Present
International Biogeography Society, 2017-Present
Society of Vertebrate Paleontology, 2016-Present
Ecological Society of America, 2015-Present
Geological Society of America, 2015-Present