

CURRICULUM VITAE

Sara Joan ElShafie, Ph.D.

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OCCUPATION

Senior Associate, Environmental & Social Innovation **2023 – Present**
MI Philanthropy, The Milken Institute

- Advised strategic planning, conducted due diligence research, networked with key institutions and thought leaders, and prepared communications to help to direct philanthropic funds to environmental and sustainability initiatives

EDUCATION

University of California, Berkeley **Graduated May 14, 2022**
Ph.D. in Integrative Biology
GPA: 3.900

University of Nebraska, Lincoln **Graduated May 9, 2014**
M.S. in Earth and Atmospheric Sciences
Specialization in Vertebrate Paleontology
GPA: 3.936

University of Chicago **Graduated June 11, 2011**
B.A. in Biological Sciences with Honors
Specialization in Ecology and Evolution
Dean's List 2007-2011
GPA: 3.689

MAJOR RESEARCH PROJECTS

University of California, Berkeley **2014 – 2022**
Department of Integrative Biology
Adviser: Dr. Kevin Padian
Dissertation research examined the impact of climate transitions on body size evolution in reptile assemblages of the North American Western Interior through the Paleogene record (66-23 Mya)

- Additional Coursework:
 - Leadership Applied to the Self, in Dyads and Writ Large **Spring 2021**
Goldman School of Public Policy
 - Introduction to Business Fundamentals **Spring 2018**
Haas School of Business

University of Nebraska, Lincoln **2012 – 2014**
Department of Earth and Atmospheric Sciences
Adviser: Dr. Jason J. Head
Masters thesis research reconstructed paleotemperatures for the North American Interior through the Paleogene based on body size change in anguid lizards

University of Chicago Fossil Lab, Chicago, IL**2009 – 2011**

Department of Organismal Biology and Anatomy

Adviser: Dr. Paul C. Sereno

Completed an honors undergraduate thesis project on a new side-necked turtle, *Laganemys tenerensis*, from mid-Cretaceous Niger, with implications for the early radiation of pleurodiran turtles and the paleobiogeography of Gondwana

SCIENCE COMMUNICATION EXPERIENCE**Entrepreneur, Workshop Leader, Coach**Founder and Principal, [Science Through Story, LLC](#)

2020 – 2022, 2023 – Present

Freelance Workshop Leader and Consultant

2016 – 2020

- Founder and principal of single-member LLC
- Created [workshop series](#) on science communication through storytelling for scientists and science educators
- Planned and implemented over 150 virtual and in-person events for groups ranging from 6 – 500+ participants
- 300+ hours delivering communication training and keynote presentations, reaching 6000+ clients and participants worldwide
- Designed logo and [website](#), and optimized SEO to achieve top search hit for “science storytelling workshops”
- Trained clients to develop and facilitate their own science communication workshops
- Frequently invited as guest speaker or panelist for conferences, webinars, online courses, and other events
- Wrote articles to teach communication skills (e.g., see this [article explaining COVID-19 mRNA vaccines](#))

Director of Scientific Storytelling & Vice President, Scientific Communications

2022 – 2023

[Weber Shandwick](#)

- Built narrative frameworks for client projects, including institutional, brand, and product narratives
- Researched industry trends, conducted competitive landscape analyses, and produced summaries of government proceedings to inform communication strategies for clients’ business and philanthropic initiatives
- Helped a philanthropic foundation create and plan an in-person forum to convene a new social impact think tank with global thought leaders to help developing countries adapt to environmental and climate change
- Developed and executed communication workshops and training in facilitation for clients and team members
- Coordinated new business strategies in collaboration with senior leadership and teams across offices
- Represented company at conferences and networked to drive new business, recruitment, and outreach

Instructor & Coordinator

University of California, Berkeley

- Berkeley SciComm Fellows Program 2020 – 2022
 - Founded new program at UC Berkeley to promote sustained science communication training on campus and create professional development opportunities for graduate students
 - Reviewed 70+ applications and selected first cohort of 12 BSC Fellows

- Trained Fellows in Workshop Design & Facilitation
- Ran workshop series on science storytelling and public speaking, open to the public, with Fellows shadowing
- Coordinated pilot year of program
- DS421 Science Communication Short Course 2016 – 2020
 - Lead developer and instructor for an annual week-long short course on science communication for the “Data Sciences for the 21st Century” program at UC Berkeley
 - Led workshops on scientific narrative and visual storytelling
 - Selected Collaborators: Rebecca Stockley, Co-Founder and Instructor, Bay Area Theater Sports; Debra Kahn, Correspondent, POLITICO; Josh Cassidy, Digital Media Producer and Cinematographer for “Deep Look,” KQED Science
- Integrative Biology Science Communication Workshop 2017 – 2019
 - Co-Founder, organizer, and instructor for annual workshop run by graduate students, open to participants across UC Berkeley campus
 - Collaborators: Aaron Pomerantz, PhD Candidate & Communicator, NextGen Science; Anand Varma, Freelance Photographer, National Geographic; Josh Cassidy, Digital Media Producer, KQED Science

Symposium Primary Organizer

- Society of Integrative & Comparative Biology (SICB) 2016 – 2018
- Organized a society-wide symposium, [Science Through Narrative: Engaging Broad Audiences](#), which took place on January 5, 2018, at the SICB Annual Meeting
 - Collaborated with invited speakers from scientific institutions around the country (e.g., University of California, Smithsonian, National Academy of Sciences, American Institute of Physics) as well as major film studios (e.g., Pixar Animation Studios, DreamWorks Animation, Industrial Light & Magic, Double Fine Productions)
 - Raised over \$20K for symposium, including funds to cover travel costs of 12 early career presenters
 - Curated a series of manuscripts that are [published open access in the peer-reviewed journal Integrative and Comparative Biology](#)

Science Writing

- PLOS SciComm Blog
Contributing Author Featured Articles:
 - [“Can Science Be Simple? Distilling Complexity into Engaging Images”](#) 2021
 - [“Science and art find common ground: The importance of storytelling”](#) 2018
- Society for Integrative & Comparative Biology
 - Public Affairs Committee Member & Editor 2016 – 2020
Press Releases:
 - [“The Cuban Cricket Crisis: New study identifies insect as the likely culprit behind alleged ‘sonic attacks’ on U.S. diplomats in Havana,”](#)
 - [“Science, Storytelling, and Art Collide in San Francisco! Scientists and Artists From the Entertainment Industry Will Lead a Symposium on Communicating Science Through Narrative on January 5,”](#)
 - Student Journalism Intern 2016
 - Web Feature Article: [“Blood, brines, and microbiology beneath Antarctic glaciers”](#)
- University of California, Berkeley 2015
Student Journalist, *Berkeley Science Review*
 - Feature Article: [“Bones in the Bell Tower,”](#) Fall 2015 Issue

Selected Facilitator Roles

- Society of Vertebrate Paleontology Annual Meeting, Virtual November 2, 2021
 - Facilitator for Panel on “Diverse Racial and Ethnic Backgrounds in Science”
- A Major Theme Park in Orlando, FL July 12, 2018

- Strategic Planning Session Facilitator
- Wildlife Society Western Section 2018 Meeting, Santa Rosa, CA February 6-8, 2018
 - Story Circle Demo Day Facilitator and Panelist with Dr. Randy Olson

Selected Invited Presentations and Appearances

- Armour Lecture, Field Museum, Chicago, IL January 25, 2023
 - Invited Speaker for public seminar: "Climate change effects on reptiles over time, science through stories, and careers in science communication"
- Bayer Consumer Health, Virtual September 7, 2022
 - Invited Presentation: "Science Storytelling"
- Society for Marketing Professional Services, Seattle Chapter, Virtual March 22, 2022
 - Invited Presentation: "Distilling Complex Stories: Making Technical Information Accessible Through Storytelling"
- MIT Alumni Association, Virtual February 16, 2022
 - Invited Presentation: "Science Storytelling"
- Nature Masterclasses Online, Virtual 2021
 - One of ten experts interviewed for a new online course, [Narrative Tools for Researchers](#)
- University of Toronto Libraries, Virtual November 9, 2021
 - Invited Panelist, *Open Science: Focus on Transparency Webinar*
 - Presentation: "Fostering transparency in science communication"
- University of Washington, Seattle, Virtual May 19, 2021
 - Guest Instructor, Business Writing Online Course
- Jacobs Institute for Design Innovation, University of California, Berkeley, Virtual April 20, 2021
 - Invited Speaker, *Design Field Notes Series*: "Using psychology and design to engage audiences"
- Bay Area Skeptics, Virtual April 8, 2021
 - Invited Presentation: "[How to Make Content Memorable and Meaningful](#)"
- ComSciCon Miami, Virtual October 17, 2020
 - Keynote Speaker: "Creative Science Communication"
- International Conference on Pharmacoepidemiology, Virtual September 17, 2020
 - Invited Speaker, *Science Communication of Pharmacoepidemiology Plenary Symposium*
 - Presentation: "Engaging the public with science: What can medical professionals learn from science communication experts?"
- Association for Tropical Biology and Conservation, Virtual August 27, 2020
 - Invited Panelist for webinar with cartoonist Rohan Chakravarty, Green Humor, and documentary filmmaker Neil Losin, Day's Edge Productions
 - Presentation: "[Communicating Tropical Biology and Conservation to Broad Audiences](#)"
- Spacetime Labs, Virtual July 27, 2017
 - Invited Panelist for webinar, "[How to Share Your Science Story](#)," with Aaron Huertas, Founder and Principal at Science Communication Media, and Jenn Maer, Design Director at IDEO

Invited Workshop Participant

- Story Circles Demo Day and 10-Week Program 2017 – 2018
USDA Headquarters, Albany, CA, and weekly conference call
Invited by Program Founder Randy Olson
- Alan Alda Center for Communicating Science Boot Camp June 19-23, 2017
Stony Brook University, Stony Brook, NY
- 5th Annual Communicating Science Conference (ComSciCon) June 8-10, 2017
Harvard University, Cambridge, MA

STRATEGIC PLANNING EXPERIENCE

Living Ofrenda Productions, Brookfield, IL

2018 – 2020

- Advisory Board Member for a new exhibit concept combining art, science, storytelling, and rock n'roll
- Helping with marketing and fundraising strategy
- Assisting with strategic networking

A Major Theme Park & Zoo in Orlando, FL

May – September 2018

- Facilitated and consulted in strategic planning sessions on story and content development for major new projects in two divisions of the park

CandyBomber Productions, San Francisco, CA

November 2019

- Assisted with mission statement and vision statement development as well as marketing strategy

Geological Society of America, Denver, CO

August – November 2018

- Invited member of the Program Task Force charged with evaluating a new decadal strategic plan for GSA's programming

Innovative Genomics Institute, University of California, Berkeley

January 18-19, 2018

- Invited by Nobel laureate Dr. Jennifer Doudna to participate in strategic planning workshop for education and outreach on CRISPR gene editing technology

SELECTED PUBLICATIONS

Science Communication

EIShafie, S.J. 2018. [Making Science Meaningful for Broad Audiences through Stories](#). *Integrative and Comparative Biology* 58(6):1213-1223.

EIShafie, S.J. and S.S. Sumida. [Science Through Narrative: Engaging Broad Audiences – An Introduction to the Symposium](#). *Integrative and Comparative Biology* 58(6):1204-1212.

Loverd, R., **EIShafie, S.J.**, Merchant, A., and C.S. Gerbin. [The Story of the Science and Entertainment Exchange, a Program of the National Academy of Sciences](#). *Integrative and Comparative Biology* 58(6):1304-1311.

Global Change Biology

EIShafie, S.J. 2024. [Body size estimation from isolated fossil bones reveals deep time evolutionary trends in North American lizards](#). *PLoS ONE* 19(1): e0296318.

EIShafie, S. J. 2022. [Does reptile body size track climate change over millions of years?](#) Doctoral Dissertation. University of California, Berkeley. Department of Integrative Biology.

EIShafie, S. J. 2014. [Body size and species richness changes in Glyptosaurinae \(Squamata: Anguinae\) through climatic transitions of the North American Cenozoic](#). Masters Thesis. University of Nebraska, Lincoln. Department of Earth and Atmospheric Sciences.

Sereno, P.C. and **S.J. EIShafie**. 2012. [A New Long-Necked Turtle, *Laganemys tenerensis* \(Pleurodira: Araripemydidae\) from the Elrhaz Formation \(Aptian-Albian\) of Niger](#). *Morphology and Evolution of Turtles*. D. B. Brinkman et al. (eds.). Springer, Netherlands: 215-250.

SELECTED PRESENTATIONS

- Stout Lecture, Department of Earth & Atmospheric Sciences
The University of Nebraska, Lincoln
*Invited Alumnus Lecture
Oral Presentation: "Useful skills and interesting careers in science communication" April 28, 2023
- PaleoFest
Burpee Museum of Natural History, Rockford, IL
*Invited Speaker for public symposium
Oral Presentation: "Climate change effects on reptiles over time, science through stories, and why everyone should learn about fossils" March 5, 2023
- Society for Integrative and Comparative Biology Annual Meeting
JW Marriott Austin, Austin, TX
Oral Presentation: "Body size tracks precipitation in crocodyliforms and local temperature in lizards over deep time" January 3-7, 2023
- Society of Vertebrate Paleontology Annual Meeting
The Westin Harbor Castle, Toronto, ON
Oral Presentation: "Crocodyliform body size tracks precipitation and lizard body size tracks local temperature over deep time intervals"
*Participant in the competitive Romer Session for Best Predoctoral Presentation November 3-5, 2022
- Society for Integrative and Comparative Biology Annual Meeting
Phoenix Convention Center, Phoenix, AZ
Oral Presentation: "Does reptile body size track environmental temperature locally or regionally over time?" January 3-7, 2022
- Society for Integrative and Comparative Biology Annual Meeting
Virtual
Oral Presentation: "Do body size changes in local reptile assemblages correspond to local or global temperatures on deep time scales?" January 3 – February 28, 2021
- Society of Vertebrate Paleontology Annual Meeting
Virtual
Oral Presentation: "Do body size changes in local reptile assemblages correspond to local or global temperatures on deep time scales?"
*Participant in the competitive Romer Session for Best Predoctoral Presentation October 11-17, 2020
- American Geophysical Union Fall Meeting
San Francisco Marriott Marquis, San Francisco, CA
Oral Presentation: "What scientists can learn from artists in entertainment" December 13, 2019
- Society of Vertebrate Paleontology Annual Meeting
Brisbane Convention & Exhibition Centre, Brisbane, Queensland, Australia
Poster Presentation: "Does body size correspond to climate in reptiles through deep time?" October 12, 2019
- North American Paleontological Convention
University of California, Riverside
Oral Presentation: "What paleontologists can learn from artists in entertainment" June 24, 2019
- University of California Annual Video Producers Conference
University of California, Berkeley
*Invited Keynote Presentation: "Visual storytelling for science communication: Tips from filmmaking" September 13, 2018

Co-Presented with Patrick Lin, Director of Photography – Camera, Pixar Animation Studios

- Society for Integrative and Comparative Biology Annual Meeting January 5, 2018
San Francisco Marriott Marquis, San Francisco, CA
*Primary Organizer and Opening Speaker for Society-Wide Symposium, *Science Through Narrative: Engaging Broad Audiences*
Oral Presentation: "Understanding and communicating science as a narrative"
- Geological Society of America Annual Meeting October 25, 2017
Washington Convention Center, Seattle, WA
Oral Presentation: "New workshop integrates story development techniques with pedagogy to teach Earth Sciences"
- Society of Vertebrate Paleontology Annual Meeting August 24, 2017
Calgary TELUS Convention Center, Calgary, AB
Poster Presentation 1: "Earliest evidence of tail regeneration in a fossil squamate"
Poster Presentation 2: "Integrating film, theater, and design approaches with paleontological perspectives to explain science"
- Earth Educators' Rendezvous July 21, 2017
University of New Mexico, Albuquerque, NM
Teaching Demonstration: "Story strategies from film studios that enhance science learning"
- National Communicating Science Conference June 10, 2017
Harvard University, Cambridge, MA
Poster Presentation: "The Science Hero's Journey: Story development workshops to enhance science communication"
- American Association for the Advancement of Science Annual Meeting February 19, 2017
Hynes Convention Center, Boston, MA
Poster Presentation: "Story art techniques enhance science communication"
- PaleoFest March 13, 2016
Burpee Museum of Natural History, Rockford, IL
*Invited Speaker for public symposium
Oral Presentation: "Lizard thermometers: Past climate change revealed through the lizard fossil record"
- Society for Integrative and Comparative Biology Annual Meeting January 4, 2016
Oregon Conference Center, Portland, OR
Poster Presentation: "Paleoclimate reconstruction from the vertebrate fossil record: Paleogene temperature estimates of the North American Interior based on body size changes in glyptosaurine lizards (Squamata: Anguidae)"
Complimentary to Symposium, *Beyond the Mean*
*Winner, Raymond Huey Student Poster Competition, Division of Ecology & Evolution

SELECTED HONORS & AWARDS

- Chancellor's Fellowship for Graduate Study 2014 – 2019
University of California, Berkeley
- Outstanding Graduate Student Instructor Award Spring 2019
University of California, Berkeley
- Mary Dawson Pre-Doctoral Fellowship Award October 2018

Society of Vertebrate Paleontology	
Geological Society of America Graduate Student Research Award	April 2017
Evolving Earth Foundation Graduate Student Research Award	April 2017
Sigma Xi Grant-in-Aid-of-Research	December 2016
Graduate Student Research Award University of California Museum of Paleontology	April 2016, 2017
Raymond Huey Award for Best Student Poster Presentation Society for Integrative and Comparative Biology Division of Ecology and Evolution	January 2016
National Science Foundation Graduate Research Fellowship Program Honorable Mention	April 2014
Dean's List University of Chicago, IL	2007-2011
Chicago Careers Innovation and Entrepreneurship Competition Finalist University of Chicago, IL Team Leader, The Paradigm Shift Project	2010 – 2011

SELECTED ADDITIONAL OUTREACH EXPERIENCE

University of California Museum of Paleontology, Berkeley, CA	2015 – 2020
<ul style="list-style-type: none"> • Tour Guide for visiting classes (Grades 2-16 and adult docents) • Private tours for donors and affiliates of the museum • Open House presentations • “Cal Day” special presentation: “Real World Fantastic Beasts and Where to Find Them” • Reviewed activities and lesson plans for new <i>Understanding Global Change</i> website 	
Nebraska State Museum, Lincoln, NE	2012 – 2014
<ul style="list-style-type: none"> • Created new hands-on activities for the museum’s major annual public engagement event, “Dinosaurs & Disasters” • Created a children’s booklet, <i>World’s Largest Reptiles: Then & Now</i>, to distribute to visitors of the traveling Smithsonian exhibit <i>Titanoboa</i> 	
Paradigm Shift, University of Chicago, IL	2010 – 2012
Founder, Lead Developer, Instructor <ul style="list-style-type: none"> • Student-run outreach youth development program that connects middle school students with undergraduate mentors • Teams explore scientific topics through hands-on inquiry-based activities • Students create original learning tools to illustrate scientific concepts, which are then showcased in a school-wide science festival 	
Project Exploration, Chicago, IL	2009 – 2011
<ul style="list-style-type: none"> • Staff/Instructor for afterschool and summer programs with Chicago Public School teens • Supervisor for Fossil Lab Summer Student Internship Program 	

SELECTED ADDITIONAL COMMUNITY SERVICE

The Science & Entertainment Exchange

2017 – Present

- Consultant Network Member

University of California, Berkeley

2015 – 2020

- UC Museum of Paleontology
 - Welles Fund Review Committee Member 2015 – 2020
 - Special events volunteer 2015 – 2020
 - Production Editor for *PaleoBios*, the museum's peer-reviewed journal 2015 – 2016
- Department of Integrative Biology
 - Graduate Student Association, Co-Chair & Treasurer 2016 – 2017
 - Student Orientation Primary Organizer 2015 – 2016
- Society for Conservation Biology, Berkeley Chapter
 - Board Member 2015 – 2020
 - Treasurer 2015 – 2017
- Women in Science at Cal
 - Board Member 2015 – 2020
 - Treasurer 2015 – 2017

Society for Integrative & Comparative Biology

2017 – 2020

- Public Affairs Committee Member 2016 – 2020
- Symposium Organizer 2016 – 2018

Society of Vertebrate Paleontology

2011 – 2021

- Science Communication Round Table Host 2016 – 2021
- Diversity Committee Member 2017 – 2020
- Education & Outreach Committee Member 2011 – 2020

SELECTED TEACHING EXPERIENCE

University of California, Berkeley

2015 – 2020

Department of Integrative Biology

- Lab & Field Instructor, Herpetology Spring 2018, 2020
- Lab Instructor, Human Anatomy Fall 2015, 2017, 2019
- Lab & Field Instructor, Natural History of the Vertebrates Spring 2019
- Discussion Instructor, Evolution Fall 2018
- Instructor & Course Developer, Science Communication Short Course Fall 2016
- Lab Instructor, General Biology Spring 2016
- Lab Instructor, Evolution of Vertebrates Spring 2015

University of Nebraska, Lincoln

2012 – 2014

Department of Earth and Atmospheric Sciences

- Lab Instructor, Historical Geology

University of Chicago, Chicago, IL

2010 – 2011

Department of Organismal Biology and Anatomy

- Teaching Assistant: Vertebrate Structure and Function, Dinosaur Science

PROFESSIONAL AFFILIATIONS

The Field Museum (Scientific Affiliate)
Society of Vertebrate Paleontology
Society of Integrative & Comparative Biology
American Geophysical Union

SELECTED REFERENCES

- Dr. Emily Musil Church, Senior Director, Environment and Social Innovation, MI Philanthropy
Relationship: Current supervisor
echurch@milkeninstitute.org
- Dr. Frank Orrico, Executive Vice President, Scientific Communications, Weber Shandwick
Relationship: Former supervisor
forrico@webershandwick.com
- Dr. Kevin Padian, Professor, Department of Integrative Biology, University of California, Berkeley
Relationship: Doctoral adviser
kpadian@berkeley.edu
- Dr. Lisa White, Director of Education and Outreach, University of California Museum of Paleontology
Relationship: Mentor and collaborator on outreach initiatives
ldwhite@berkeley.edu
- Dr. David Ackerly, Professor and Dean, Rausser College of Natural Resources, University of California, Berkeley
Relationship: Former supervisor, PI of the DS421 Graduate Program
dackerly@berkeley.edu
- Daniel McCoy, Senior Software Developer, Pixar Animation Studios
Relationship: Workshop co-Leader
dsmccoy@gmail.com
- Dr. Stuart Sumida, Professor, Department of Biology, California State University, San Bernardino
Relationship: Mentor and co-organizer of *Science Through Narrative* symposium
ssumida@csusb.edu
- Dr. Kirk Johnson, Director, Smithsonian National Museum of Natural History
Relationship: Mentor and invited speaker in *Science Through Narrative* symposium
johnsonkr@si.edu
- Kari Keillor, Founder and Artistic Director, Living Ofrenda Productions, LLC
Relationship: Strategic Planning Advisee
casakeillor@gmail.com
- Dr. Jason Head, University Lecturer and Curator of Vertebrate Palaeontology, Department of Zoology and University Museum of Zoology, University of Cambridge
Relationship: Masters adviser, former supervisor for lab instructor position
jjh71@cam.ac.uk