Evan Thomas Saitta, Ph.D.

E-Mail: evansaitta@gmail.com
Website: https://evansaitta.blog/
Google Scholar: https://scholar.google.com/citations?user=umU9KBMAAAAJ&hl=en&oi=ao
ResearchGate: https://www.researchgate.net/profile/Evan_Saitta

Appointments

The Field Museum of Natural History — **Research, Advising, Outreach, & Fundraising**
One of the world's leading Natural History Museums (40 million+ specimens)
AAM-accredited

Research Associate, Negaunee Integrative Research Center, Life Sciences Section — **2020–present**
Bass Postdoctoral Researcher, Negaunee Integrative Research Center, Earth Sciences Section — **June 2018–June 2020**
Supervisor: Dr. Peter Makovicky

The University of Chicago — **Research, Teaching, & Outreach**
#2 USA Paleontology program (*U.S. News & World Report* 2022)
#24–26 globally in Biological Sciences (*QS World University Rankings by Subject* 2022–2023)
#9–11 university globally (*QS World University Rankings* 2021–2024)

Postdoctoral Scholar, Biological Sciences Division, Dept. of Organismal Biology and Anatomy — **Oct. 2021–Dec. 2024**
Supervisor: Dr. Paul Sereno

Benedictine University (Lisle, IL) — **Teaching**
Adjunct Lecturer, Biological Sciences — **Fall 2025**
Courses taught: BIOL 4364 Ecology Laboratory; BIOL 1199 Principles of Biology Lab

The University of Illinois Chicago — **Teaching**
Adjunct Lecturer, Dept. of Earth and Environmental Sciences — **Spring 2022**
Course taught: EAES/BIOS 360 Introduction to Paleontology

Education

The University of Bristol, UK — #1 Paleontology research group globally (*Center for World University Rankings* 2017)
School of Earth Sciences — #2 UK, #16 globally in Earth Sciences (*Shanghai Global Ranking of Academic Subjects* 2019)
#19 in Earth Sciences globally (*QS World University Rankings by Subject* 2016)
Russell Group

Ph.D. in Geology — **2015–April 2018 (*viva*), Jan. 2019 (graduation ceremony)**
Advisor: Dr. Jakob Vinther
Thesis: "The taphonomy of soft tissues and the evolution of feathers"

M.Sc. (***Distinction***) in Palaeobiology — **2014–2015 (submission), Jan. 2016 (graduation ceremony)**
Advisor: Dr. Jakob Vinther
Thesis: "The taphonomy of keratin in archosaurs"

Princeton University, USA — #1 USA university (*U.S. News & World Report* 2010, 2012–2015, etc.)
Ivy League

B.A. (***Magna Cum Laude***) in Ecology and Evolutionary Biology — **2010–2014**
Advisor: Dr. James Gould
Thesis: "Paleobiology of North American stegosaurs: Evidence for sexual dimorphism"

Publications

h-index = 17; *i10*-index = 18
(Year indicates date of initial online publication; Bold font indicates 1st, 2nd, or PI authorship or high impact journal)

26) Saitta, ET (2026) Are we underfitting dinosaur growth models? Accounting for intra- & inter-specific variation. *Cretaceous Research*, p.106426.

25) Sereno, PC, Vidal, D, Myhrvold, NP, Johnson-Ransom, E, Ciudad Real, M, Baumgart, SL, Sánchez Fontela, N, Green, TL, Saitta, ET, Adamou, B, Bop, LL, Keillor, TM, Fitzgerald, EC, Dutheil, DB, Laroche, RAS, Demers-Potvin, AV, Simarro, Á, Gascó-Lluna, F, Lázaro, A, Gamonal, A, Beightol, CV, Reneleau, V, Vautrin, R, Bertozzo, F, Granados, A, Kinney-Broderick, G,

Mallon, JC, Lindoso, RM, and Ramezani, J (2026) Scimitar-crested *Spinosaurus* species from the Sahara caps stepwise spinosaurid radiation. ***Science***. 391. DOI: 10.1126/science.adx5486

Altmetric score: 2,949

24) Sereno, PC, **Saitta, ET**, Vidal, D, Myrhvold, N, Ciudad Real, M, Baumgart, SL, Bop, LL, Keillor, TM, Erickson, M, and Derstler, K (2025) Duck-billed dinosaur fleshy midline and hooves reveal terrestrial clay-template "mummification". ***Science*** 391(6780), 1–15. DOI: 10.1126/science.adw3536

Altmetric score: 2,118

23) Prado, GMEM, Salvato, RCJPS, Becker-Kerber, B, Silva, EP, Pinheiro, FL, Osés, GL, Galante, D, Rodrigues, F, Dias, JJ, de Souza Carvalho, I, Saitta, ET, Lino, LM, and Anelli, LE (2025) Fossil fish provide evidence of geomelanin preservation with implications on the visual accuracy of an extinct fish species. *Lethaia* 58(3), 1–17. DOI: 10.18261/let.58.3.7

22) **Saitta, ET**, and Kaye, TG (2025) Experimental maturation of pine resin in sediment to investigate the formation of synthetic copal and amber. *Scientific Reports* 15, 7627. DOI: 10.1038/s41598-025-89448-5

Altmetric score: 44

21) **Saitta, ET**, Balaji, L, Mitchell, JS, and Makovicky, PJ (2025) Feather evolution following flight loss in crown group birds: relaxed selection and developmental constraints. *Evolution* 79(5), 737–751. DOI: 10.1093/evolut/qpaf020

Altmetric score: 116

20) Myhrvold, NP, Baumgart, SL, Vidal, D, Fish, FE, Henderson, DM, Saitta, ET, and Sereno, PC (2024) Diving dinosaurs? Caveats on the use of bone compactness and pFDA for inferring lifestyle. *PLoS ONE* 19(3), e0298957. DOI: 10.1371/journal.pone.0298957

Altmetric score: 707

19) Longrich, NR, and **Saitta, ET** (2024) Taxonomic status of *Nanotyrannus lancensis* (Dinosauria: Tyrannosauroidea) — a distinct taxon of small-bodied tyrannosaur. *Fossil Studies* 2(1), 1–65. DOI: 10.3390/fossils2010001

Altmetric score: 818

18) **Saitta, ET**, Vinther, J, Crisp, MK, Abbott, GD, Wheeler, L, Presslee, S, Kaye, TG, Bull, I, Fletcher, I, Chen, X, Vidal, D, Sanguino, F, Buscalioni, AD, Calvo, J, Sereno, PC, Baumgart, SL, Pittman, M, Collins, MJ, Sakalauskaite, J, Mackie, M, Dal Bello, F, Dickinson, MR, Stevenson, MA, Donohoe, P, Heck, PR, Demarchi, B, and Penkman, KEH (2023) Non-avian dinosaur eggshell calcite can contain ancient, endogenous amino acids. *Geochimica et Cosmochimica Acta* 365, 1–20. DOI: 10.1016/j.gca.2023.11.016

Altmetric score: 141

17) Roy, A, Pittman, M, Kaye, TG, and **Saitta, ET** (2023) Sediment-encased pressure–temperature maturation experiments elucidate the impact of diagenesis on melanin-based fossil color and its paleobiological implications. *Paleobiology* 49(4), 712–732. DOI: 10.1017/pab.2023.11

16) Mayr, G, Kaye, TG, Pittman, M, Saitta, ET, and Pott, C (2020) Reanalysis of putative ovarian follicles suggests that Early Cretaceous birds were feeding not breeding. *Scientific Reports* 10, 19035. DOI: 10.1038/s41598-020-76078-2

Altmetric score: 44

15) **Saitta, ET**, Stockdale, MT, Longrich, NR, Bonhomme, V, Benton, MJ, Cuthill, IC, and Makovicky, PJ (2020) **Invited Review:** An effect size statistical framework for investigating sexual dimorphism in non-avian dinosaurs and other extinct taxa. *Biological Journal of the Linnean Society* 131(2), 231–273. DOI: 10.1093/biolinnean/blaa105

Altmetric score: 296

14) Liang, R, Lau, MCY, Saitta, ET, Garvin, ZK, and Onstott, TC (2020) Genome-centric resolution of novel microbial lineages in an excavated *Centrosaurus* dinosaur fossil bone from the Late Cretaceous of North America. *Environmental Microbiome* 15, 8. DOI: 10.1186/s40793-020-00355-w

Altmetric score: 200

13) **Saitta, ET**, and Vinther, J (2019) A perspective on the evidence for keratin protein preservation in fossils: an issue of replication versus validation. *Palaeontologia Electronica* 22.3.2E, 1–30. DOI: 10.26879/1017

12) Roy, A, Pittman, M, Saitta, ET, Kaye, TG, and Xu, X (2019) Recent advances in amniote palaeocolour reconstruction and a framework for future research. *Biological Reviews* 95(1), 22–50. DOI: 10.1111/brv.12552

Altmetric score: 70

11) **Saitta, ET**, Liang, R, Lau, MCY, Brown, CM, Longrich, NR, Kaye, TG, Novak, BJ, Salzberg, SL, Norell, MA, Abbott, GD, Dickinson, MR, Vinther, J, Bull, ID, Brooker, RA, Martin, P, Donohoe, P, Knowles, TDJ, Penkman, KEH, and Onstott, T (2019) Cretaceous dinosaur bone contains recent organic material and provides an environment conducive to microbial communities. *eLife* 8, e46205. DOI: 10.7554/eLife.46205.001

Altmetric score: 405

10) **Saitta, ET**, Fletcher, I, Martin, P, Pittman, M, Kaye, TG, True, LD, Norell, MA, Abbott, GD, Summons, RE, Penkman, K, and Vinther, J (2018) Preservation of feather fibers from the Late Cretaceous dinosaur *Shuvuuia deserti* raises concern about immunohistochemical analyses on fossils. *Organic Geochemistry* 125, 142–151. DOI: 10.1016/j.orggeochem.2018.09.008

9) **Saitta, ET**, Kaye, TG, and Vinther, J (2018) Sediment-encased maturation: a novel method for simulating diagenesis in organic fossil preservation. *Palaeontology* 62(1), 135–150. DOI: 10.1111/pala.12386

Altmetric score: 210

8) **Saitta, ET**, Clapham, C, and Vinther, J (2018) Experimental subaqueous burial of a bird carcass and compaction of plumage. *Paläontologische Zeitschrift* 92(4), 727–732. DOI: 10.1007/s12542-018-0411-y

Altmetric score: 29

7) Parry, LA, Smithwick, F, Norden, K, Saitta, ET, Lozano-Fernandez, J, Tanner, A, Bernard Caron, J, Edgecombe, GD, Briggs, DEG, and Vinther, J (2017) Soft-bodied fossils are not simply rotten carcasses — towards a holistic understanding of exceptional fossil preservation. *BioEssays* 40(1), 1700167. DOI: 10.1002/bies.201700167

Altmetric score: 252

6) **Saitta, ET**, Gelernter, R, and Vinther, J (2017) Additional information on the primitive contour and wing feathering of paravian dinosaurs. *Palaeontology* 61(2), 273–288. DOI: 10.1111/pala.12342

Altmetric score: 128

5) **Saitta, ET**, Rogers, CS, Brooker, RA, and Vinther, J (2017) Experimental taphonomy of keratin: a structural analysis of early taphonomic changes. *Palaios* 32(10), 647–657. DOI: 10.2110/palo.2017.051

Altmetric score: 36

4) **Saitta, ET**, Rogers, C, Brooker, RA, Abbott, GD, Kumar, S, O'Reilly, SS, Donohoe, P, Dutta, S, Summons, RE, and Vinther, J (2017) Low fossilization potential of keratin protein revealed by experimental taphonomy. *Palaeontology* 60(4), 547–556. DOI: 10.1111/pala.12299

Altmetric score: 68

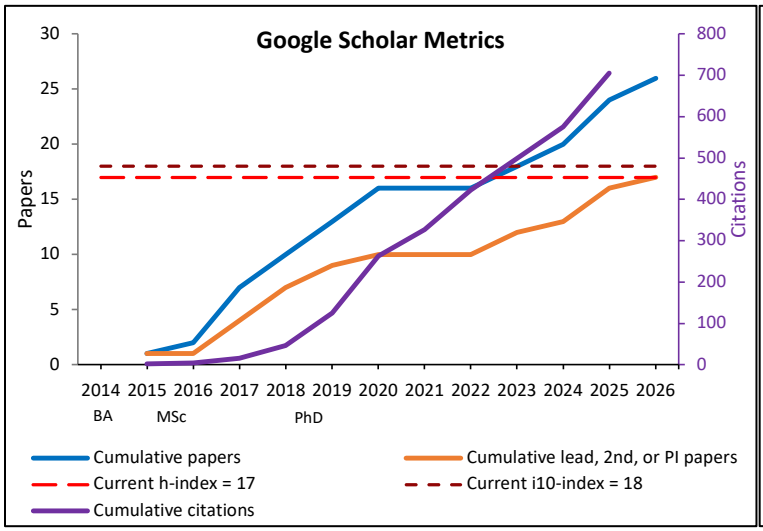
3) Smithwick, F, Mayr, G, Saitta, ET, Benton, M, and Vinther, J (2017) On the purported presence of fossilised collagen fibres in an ichthyosaur and a theropod dinosaur. *Palaeontology* 60(3), 409–422. DOI: 10.1111/pala.12292

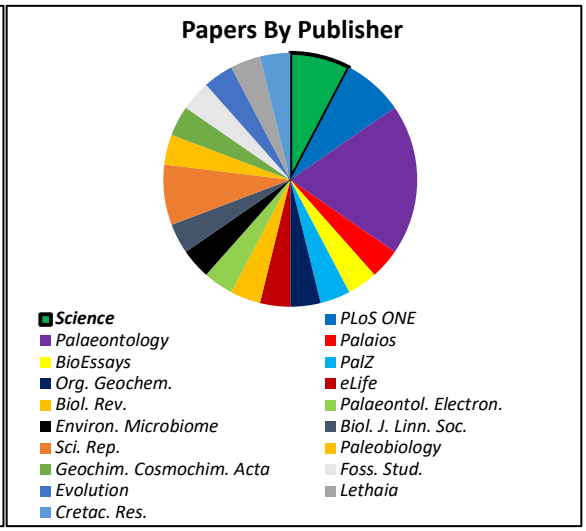
2) Mayr, G, Pittman, M, Saitta, E, Kaye, T, and Vinther, J (2016) Structure and homology of *Psittacosaurus* tail bristles. *Palaeontology* 59(6), 793–802. DOI: 10.1111/pala.12257

Altmetric score: 282

1) **Saitta, ET** (2015) Evidence for sexual dimorphism in the plated dinosaur *Stegosaurus mjosi* (Ornithischia, Stegosauria) from the Morrison Formation (Upper Jurassic) of western USA. *PLoS ONE* 10(4), e0123503. DOI: 10.1371/journal.pone.0123503

Altmetric score: 665





Unpublished Preprints

Roy, A, Saitta, ET, Musa, M, Al-Kindi, S, Kaye, TG, and Pittman, M (2026) **A multi-spectroscopic investigation into the diagenesis of avian polyene pigments: simulated maturation, chemical pathways and palaeontological implications.** *Research Square*. DOI: 10.21203/rs.3.rs-7900994/v1

Saitta, ET (2025) **Museums should curate beyond the natural: domestic breeds offer unique insight into evolutionary processes & human culture.** *EcoEvoRxiv*. DOI: 10.32942/X2VK88

Saitta, ET, Bonhomme, V, Lukens, M, Vidal, D, Longrich, NR, Richmond, DR, and Stockdale, MT (2025) **The function and evolution of stegosaur osteoderms and hypothesized sexual dimorphism in *Hesperosaurus*.** *bioRxiv*. DOI: 10.1101/2025.04.10.648273

Saitta, ET (2020) **The Society of Vertebrate Paleontology's publication policy is inconsistent with scientific epistemology.** *PaleorXiv*. DOI: 10.31233/osf.io/xmkhb

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Manuscripts Under Review

Saitta, ET, Ashby, J, Bakker FT, Gnoske, TP, Heller, NE, Malinich, S, Oliveira, G, Pell, R, Stockdale, MT, van Grouw, H (Under Review) **Museums should curate beyond the natural: anthropogenically altered organisms offer unique insight into evolutionary processes & human culture**.

Saitta, ET, Greidanus, C, Wadleigh, J, Shinya, A, Waldbauer, J, and Kaye, TG (Under Review) **A method for entrapping specimen inclusions within 'synthetic amber' using sediment-encased artificial maturation.**

Saitta, ET, Sereno, PC, Vidal, D, Ciudad Real, M, Keillor, TM, Bop, L, Baumgart, SL, Burdick, A, Radermacher, V, Kaye, TG, Dussubieux, L, Maxey, E, Filatov, A, and Chen, X (Under Review) **Dinosaur 'mummification': clay templating in a fluvial setting preserves three-dimensional integument renderings after carcass desiccation.**

Roy, A, Saitta, ET, Musa, M, Al-Kindi, S, Kaye, TG, and Pittman, M (Under Review) **A multi-spectroscopic investigation into the diagenesis of avian polyene pigments: simulated maturation, chemical pathways and palaeontological implications.**

Saitta, ET (Under review) **Distributions of sexual size dimorphism: significance thresholds, systematic errors, & scaling.**

Longrich, NR, Makovicky, PJ, Tokaryk, T, Cooper, DML, Saitta, ET, Erickson, GM, Szekely, T and Snively, E (Under review) **Hatchlings of *Tyrannosaurus rex* and the evolution of dinosaur reproductive strategies.**

Achievements†, Funding*, & Accepted Proposals

CNPEM Proposal - Brazilian Center for Research in Energy and Materials (Campinas, Brazil) **2024**
PI: Kerber, BB. Co-Proposers: Saitta, ET, Prado, GMEM, Silva, EP
"Can Raman spectroscopy really reveal biosignatures in fossil dinosaurs?"

Paleontological Society Norman Newell Early Career Grant* **2023**
"Characterizing the diagenesis of sex hormones"

The Palaeontological Association Research Grant* **2022**
"Characterizing the diagenesis of sex hormones"

Honoring Our Professors' Excellence (HOPE) Award† **2022**
University of Illinois Chicago Office of Campus Housing award as nominated by students

University of Chicago Fossil Lab Postdoctoral Funding* **2021-2024**
Postdoctoral salary & research funds through the Sereno Fossil Lab, University of Chicago

Bass Postdoctoral Fellowship* **2018-2020**
Postdoctoral salary & research funds through the Negaunee Integrative Research Center, Field Museum of Natural History

Paleontological Society Stephen Jay Gould Award* **2017**
Paleontological Society Student Research Grant: "Material properties of keratinous structures"

The Daniel Pidgeon Fund* **2017**
The Geological Society research grant: "Creating fossils in the lab: sediment-based maturation experiments"

Bob Savage Memorial Fund* **Received four times – 2016-2017**
University of Bristol palaeobiology graduate student award

Jackson Student Travel Grant* **2016**
Society of Vertebrate Paleontology award to support student travel to their annual meeting

M.Sc. Award: Distinction (University of Bristol)† **2015**

University of Bristol Alumni Foundation Travel Grant* **Received twice – 2015**
University of Bristol student award to support conference attendance costs

Magna Cum Laude (Princeton University)† **2014**

Elected to the Society of Sigma Xi† **2014**

Senior Thesis Poster Award in Behavior† **2014**
Granted by Princeton University's Department of Ecology and Evolutionary Biology

Office of the Dean of the College Senior Thesis Research Funding* **2013**
Princeton University academic research grant

Fred Fox Fund* **2012**
Academic research award and grant through the Office of Religious Life at Princeton University

Pending Funds & Proposals

National Science Foundation - Life and Environments Through Time Status: Pending 2026
Institution: Field Museum of Natural History
PI: Herrera, FA
Co-PI: Saitta, ET (*wrote initial draft of proposal*)
"Experimental & Molecular Study of Plant Fossilization from Fossil Lake Lagerstätte"
Requested Amount: $794,906

Teaching

Adjunct Lecturer, Benedictine University (Lisle, IL)
Lead, sole course instructor: Ecology Laboratory BIOL 4364 (2 sections) **Fall 2025**
Section instructor: Principles of Biology Lab BIOL 1199 (1 section) **Fall 2025**

Adjunct Lecturer, University of Illinois Chicago
Lead, sole course instructor: Introduction to Paleontology EAES/BIOS 360 **Spring 2022**

Guest Lecturer, University of Chicago
Dinosaur Science BIOS 23100: "Taphonomy & Footprints" lecture **Spring 2023**

Postdoctoral Field Teaching Assistant, University of Chicago
Dinosaur Science BIOS 23100: Week-long dinosaur excavation in Wyoming **Summer 2023**

Graduate Teaching Assistant / Demonstrator, University of Bristol
Evolution of the Biosphere EASC30008 (*Master's level course*) **Fall 2015**
Geobiology EASC20024 **Spring 2017**
Geology 1: Evolution of Earth and Life EASC10001 **Spring 2017**
Environmental Geoscience: Climate and Ecology EASC10002 **Fall 2015**

Advising, Training, & Mentoring

Mentoring **2018-present**
My sediment-encased maturation method has been used* in collaboration with graduate students from:
University of Hong Kong – Ph.D. student; Two chapters of 2021 thesis
University of California Davis – Ph.D. student
University of Chicago – Ph.D. student
University of Bristol – M.Sci. student; Entire 2023 thesis based on modern, fossil, capsule maturation, & sediment-encased maturation samples I processed & lipid extracted
**Students from the Netherlands, UK, & China have also inquired about using my method in their Ph.D. projects*

Advising
Undergraduate students: summer intern* & volunteer supervising, **Field Museum** **2018-2020**
*Supported by University of Chicago's Jeff Metcalf Internship Program; became study coauthor & later pursued science in graduate school

Training
Graduate teaching assistant training, **University of Illinois Chicago** **Spring 2022**

Academic Presentations

(Lead presenter only)

Northwestern University
Department of Earth, Environmental, and Planetary Sciences, Seminar Series: Talk **5/2026**
Can you predict the past? Molecular & experimental paleontology

Society of Vertebrate Paleontology annual meeting
Minneapolis, Minnesota, USA: Talk & Poster **10/2024**
Talk – Exceptional preservation of integumental structures in hadrosaur 'mummies' via clay templating
Poster – 'Synthetic fossils': experiments make taphonomy a better science
Cincinnati, Ohio, USA: Poster **10/2023**
Sexing dinosaurs: Possible detection of trace sex hormones in fossils as old as the Jurassic and the thermal stability of estrogen
*Virtual Conference: Poster – **abstract accepted but later withdrawn due to registration cost* **11/2021**
Relaxing selective pressures on complex structures: feather evolution after flight loss in recent birds

Virtual Conference: Poster **10/2020**
Non-avian dinosaur eggshell calcite contains ancient, endogenous amino acids
Brisbane, Australia: Talk **10/2019**
Sexual dimorphism in non-avian dinosaurs and other extinct taxa: the importance of effect size statistics in paleontology
Albuquerque, New Mexico, USA: Talk (*Romer Prize Session*) **10/2018**
Molecular stability and mobility: Protein diagenesis in open and closed taphonomic systems
Calgary, Alberta, Canada: Talk (*Romer Prize Session*) **8/2017**
Creating fossils in the lab: replicating fossilization using sediment-based maturation
Salt Lake City, Utah, USA: Talk **10/2016**
The taphonomy of keratin in archosaurs

Palaeoproteomics and Archaeology, Society for Techniques and Advances (affiliate of The International Society for Biomolecular Archaeology)
PAASTA Talk Series: Virtual Talk **7/2024**
Eggshell Time Capsules: Ancient Amino Acids

Weizmann Institute of Science
Kimmel Center for Archaeological Science Seminar: Virtual Talk **4/2024**
Eggshell Time Capsules: Ancient Amino Acids

The University of Chicago
Darwinian Sciences Cluster Retreat: Poster **9/2023**
Sexing dinosaurs: Possible detection of trace sex hormones in fossils as old as the Jurassic and the thermal stability of estrogen
Evolutionary Morphology Seminar Series: Talk **10/2021**
Molecular fossil hunting: analytical and experimental taphonomy

The University of Copenhagen (Denmark)
Globe Institute: Talk **7/2022**
Molecular fossil hunting: analytical and experimental taphonomy

The University of Illinois Chicago
EAES Departmental Seminar: Talk **3/2022**
Molecular fossil hunting: analytical and experimental taphonomy

Field Museum of Natural History
A. Watson Armour Seminar Series: Talk **9/2019**
Mesozoic molecules: revealing information from fossils through taphonomy

Argonne National Laboratory
Advanced Photon Source: Coffee Talk **8/2019**
Exceptional fossils: feathers, soft tissues, and ancient molecules

Palaeontological Association annual meeting
London, UK **12/2017**
Talk – Approaching sexual dimorphism in non-avian dinosaurs and other extinct taxa
Poster – Life inside a dinosaur bone: a thriving microbiome
Lyon, France **12/2016**
Poster – Primitive contour feathers in paravian dinosaurs and the evolution of avian plumage
Informal talk ('Friends of the Rotten' discussion meeting) – Taphonomy 2.0: Experimental P/T maturation using sediment as a taphonomic filter to investigate soft tissue preservation
Cardiff, UK **12/2015**
Poster – The taphonomy of keratin in archosaurs
Talk – Evidence for sexual dimorphism in the plated dinosaur *Stegosaurus mjosi* (Ornithischia, Stegosauria) from the Morrison Formation (Upper Jurassic) of western USA

International Workshop on Konservat-Lagerstätten
Cork, Ireland: Talk **7/2017**
Dinosaur eggshell calcite as a closed system: 'molecular Konservat-Lagerstätten'

Popular Science Articles

The Conversation

"Fossilized dinosaur eggshells can preserve amino acids, the building blocks of proteins, over millions of years" **4/2024**
"Did male and female dinosaurs differ? A new statistical technique is helping answer the question" **1/2022**
"How some dinosaur discoveries might be wishful scientific thinking" **11/2017**
Contributor to Longrich, NR "Dinosaur bones: hidden life revealed inside them" **7/2019**

***TheScienceBreaker* (partner with Université de Genève)** **11/2019**
"Long-dead dinosaurs support new life"

Radio & Podcast Appearances

The Primal Biology Show **7/2025**
Interview discussing my career and insights

The Best of our Knowledge **6/2025**
Interview with WMAC Northeast Public Radio discussing Saitta & Kaye (2025, *Scientific Reports*)

The Skeptics Guide to the Universe **6/2019**
Twenty-minute interview on the podcast discussing Saitta *et al.* (2019, *eLife*)

Palaeocast **6/2019**
Hour-long interview on the podcast discussing Saitta *et al.* (2019, *eLife*)

These Vibes Are Too Cosmic **5/2018**
Hour-long interview with Princeton, New Jersey, radio show on my research in general

***BBC*: National & Bristol radio** **4/2015**
Interviews discussing Saitta (2015, *PLoS ONE*)

Institutional Advancement & Fundraising

Field Museum Giving Day Ambassador **10/2019**
Helped with grassroots fundraising for "Nurturing Future Scientists"

Field Museum Private Collections Tour **8/2019**
Showcased oversized fossil collections to Chairman's Circle member

Field Museum Donor Private Meeting **6/2019**
Talk given to museum donors at a small breakfast meeting

Field Museum Pop-up **6/2019**
Informal meet and greet with Field Museum board members at downtown 'dig site' pop-up

Field Museum Members' Night **5/2019**
Discussed my work with Field Museum members

Sue Celebration **1/2019**
Presented my work to Field Museum members and donors

Field Encounters **11/2018**
Talk given to Field Museum donors entitled "Creating synthetic fossils in the lab"

Peer Reviewer

Nature Ecology & Evolution
BMC Evolutionary Biology
Journal of Proteomics
Biology Letters
Cretaceous Research
Royal Society Open Science
Paleobiology
Neues Jahrbuch für Geologie und Paläontologie
PeerJ; PeerJ Life & Environment
Princeton University Press: *Remnants of Ancient Life*

Editorial Roles

Associate Editor, *Frontiers in Ecology & Evolution*, Paleoecology section **2025-present**

Public Outreach

Fossil Crates Live! **3/2025**
Expert guest on members-only Zoom call series hosted by Dr. Brian Curtice

Sereno Fossil Lab Open Houses **2024**
Engaged southside community in monthly open houses for the newly opened Fossil Lab at the University of Chicago

Southside Science Festival **9/2023**
Presenter at a booth for a University of Chicago science communication event for local community

Dinosaurs of the Sahara **5/2023**
Assisted Sereno Lab in preparing displays and specimens for public exhibit at the Cleveland Great Lakes Science Center

Gloucester Museum "Dinosaurs" Talks and Workshops **9/2017**
Feathers and colour in dinosaurs

Bristol Dinosaur Project **2015**
Educational outreach program directed at children

Jurassic Quest **7/2014**
Educational day directed at young children involving fossil displays

The Billings Clinic **7/2013**
Presented to TV/print media and the public about use of CT scanner for undergraduate thesis

Princeton Undergraduate Research and Public Service Symposium **2013**
Alumni Day showcase of independent research

Societies & Groups

The Society for the Study of Evolution **2025-present**

The Society of Vertebrate Paleontology **2013-Feb 2026**

The Palaeontological Association **2015-present**

The Paleontological Society **2010-present**

DinoSoc **2014-2017**
University of Bristol student paleontology society

Bristol University Geology and Geoscience Society **2014-2017**

myFOSSIL.org **2015**
Beta tester

Princeton Undergraduate Geosciences Society **2012-2014**

University of Bristol Snowsports Club **2015-2018**
Snowboard race team

University of Bristol Athletics and Cross Country Club **2014-2018**
Cross country

Princeton University Cannon Dial Elm Club **2012-2014**

Princeton University Varsity Track and Field **2010-2014**
Non-recruited 'walk-on' pole vaulter & sprinter

Experience & Networks

International collaborative research network:

- USA
- Germany
- China
- United Kingdom
- Ireland
- India
- Canada
- Spain
- Argentina
- Denmark
- Italy
- Brazil
- Niger
- France
- Belgium
- Oman

Paleontological (prospecting, quarrying, preparation), geological, environmental, & biological field experience:

- University of Chicago: Wyoming
- Field Museum: Montana, Utah, Missouri, & Argentina
- Royal Tyrell Museum: Dinosaur Provincial Park, Alberta (Canada)
- Royal Tyrell Museum Field Station (preparatory lab): Dinosaur Provincial Park, Alberta (Canada)
- Dinosoc: UK
- Princeton University: geology (Spain, France, Utah, New Mexico, the Catskills, Kentucky, Delaware Water Gap, & Yellowstone National Park) & biology/environmental science (Bermuda & Yellowstone National Park)
    - Bermuda field experience in partnership with the Bermuda Institute of Ocean Sciences
- Independent paleontological field & preparatory lab experience over seven summers: Montana

Laboratory experience:

- Princeton University
- University of Bristol (UK)
- University of York (UK)
- University of Newcastle (UK)
- University of Copenhagen (Denmark)
- Foundation for Scientific Advancement
- Field Museum
- Northwestern University
- Argonne National Laboratory
- University of Chicago

Analytical experience:

- Specimen-based research (fossil & modern reptiles, birds, fish, invertebrates, plants)
- R-based morphometrics, statistics, & data analysis
- Fossil bone histology & thin sectioning
- Hospital & micro-CT scanning
- Decay & maturation experiments
- Light microscopy
- Electron microscopy
- Energy-dispersive X-ray spectroscopy
- Pyrolysis-gas chromatography-mass spectrometry
- Laser stimulated fluorescence imaging & fluorescence microscopy
- High-performance liquid chromatography
- DNA, protein, & lipid extraction (incl. clean lab)
- Qubit fluorometry
- Time-of-flight secondary ion mass spectrometry
- Accelerator mass spectrometry
- Attenuated total reflectance Fourier-transform infrared spectroscopy
- Synchrotron X-ray fluorescence
- Raman spectroscopy
- Portable X-ray fluorescence

- X-ray diffraction
- White light scanning & photogrammetry
- Laser ablation-inductively coupled plasma-mass spectrometry
- Magnetic resonance imaging
- Laser diffraction particle size analysis

Museum collections experience & research visits:

- Field Museum of Natural History
- American Museum of Natural History
- Senckenberg Naturmuseum Frankfurt (Germany)
- Paläontologische Museum München (Germany)
- Smithsonian National Museum of Natural History
- Yale Peabody Museum
- Carnegie Museum of Natural History
- Dinosaur National Monument
- Denver Museum of Nature and Science
- Sauriermuseum Aathal (Switzerland)
- Natural History Museum of Utah
- Wyoming Dinosaur Center
- Brigham Young University Museum of Paleontology
- Museum of Western Colorado
- Virginia Museum of Natural History
- Black Hills Institute of Geologic Research
- Utah Field House of Natural History State Park Museum
- Houston Museum of Natural Science
- Natural History Museum, London (UK)
- Chicago Botanic Garden

Newly Described Taxa

Spinosaurus mirabilis (Sereno *et al.* 2026, ***Science***)
Cretaceous, Niger – Dinosaur

Novel microbial community within buried dinosaur bone (Liang *et al.* 2020, *Environmental Microbiome*)
Modern, Canada – 46 genomes from six bacterial phyla (Actinobacteria, Proteobacteria, Nitrospira, Acidobacteria, Gemmatimonadetes, Chloroflexi) & one archaeal phylum (Thaumarchaeota), the majority of which represented novel microbial lineages from class to species levels