

# Evan Thomas Saitta, Ph.D.

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## Appointments

<b>The Field Museum of Natural History</b>	Research, Advising, Outreach, & Fundraising
Research Associate, Negaunee Integrative Research Center, Life Sciences Section	<b>2020-present</b>
Bass Postdoctoral Researcher, Negaunee Integrative Research Center, Earth Sciences Section	<b>June 2018-June 2020</b>
Supervisor: Dr. Peter Makovicky	
<b>The University of Chicago</b>	Research, Teaching, & Outreach
Postdoctoral Scholar, Biological Sciences Division, Dept. of Organismal Biology and Anatomy	<b>Oct. 2021-Dec. 2024</b>
Supervisor: Dr. Paul Sereno	
<b>Benedictine University (Lisle, IL)</b>	Teaching
Adjunct Lecturer, Biological Sciences	<b>Fall 2025</b>
Courses taught: BIOL 4364 Ecology Laboratory; BIOL 1199 Principles of Biology Lab	
<b>The University of Illinois Chicago</b>	Teaching
Adjunct Lecturer, Dept. of Earth and Environmental Sciences	<b>Spring 2022</b>
Course taught: EAES/BIOS 360 Introduction to Paleontology	

## Education

<b>The University of Bristol, UK</b> School of Earth Sciences	#1 Paleontology research group globally ( <i>Center for World University Rankings</i> 2017) #2 UK, #16 globally in Earth Sciences ( <i>Shanghai Global Ranking of Academic Subjects</i> 2019) #19 in Earth Sciences globally ( <i>QS World University Rankings by Subject</i> 2016) Russell Group
<b>Ph.D. in Geology</b>	<b>2015-April 2018 (<i>viva</i>), Jan. 2019 (graduation ceremony)</b>
Advisor: Dr. Jakob Vinther	
Thesis: "The taphonomy of soft tissues and the evolution of feathers"	
<b>M.Sc. (<i>Distinction</i>) in Palaeobiology</b>	<b>2014-2015 (submission), Jan. 2016 (graduation ceremony)</b>
Advisor: Dr. Jakob Vinther	
Thesis: "The taphonomy of keratin in archosaurs"	
<b>Princeton University, USA</b>	#1 U.S. university ( <i>U.S. News &amp; World Report</i> 2010, 2012-2015, etc.) Ivy League
<b>B.A. (<i>Magna Cum Laude</i>) in Ecology and Evolutionary Biology</b>	<b>2010-2014</b>
Advisor: Dr. James Gould	
Thesis: "Paleobiology of North American stegosaurs: Evidence for sexual dimorphism"	

## Publications

*h*-index = 17; *i10*-index = 17

(Year indicates date of initial online publication; Bold font indicates 1<sup>st</sup>, 2<sup>nd</sup>, or PI authorship or high impact journal)

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: 2,728*

24) Sereno, PC, Saitta, ET, Vidal, D, Myhrvold, 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: 2,139*

- 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: 126
- 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: 725
- 19) Longrich, NR, and [Saitta, ET](#) (2024) Taxonomic status of *Nanotyrannus lancensis* (Dinosauria: Tyrannosauroida) – a distinct taxon of small-bodied tyrannosaur. *Fossil Studies* 2(1), 1–65. DOI:10.3390/fossils2010001  
Altmetric score: 830
- 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: 404

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: 209

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: 129

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: 69

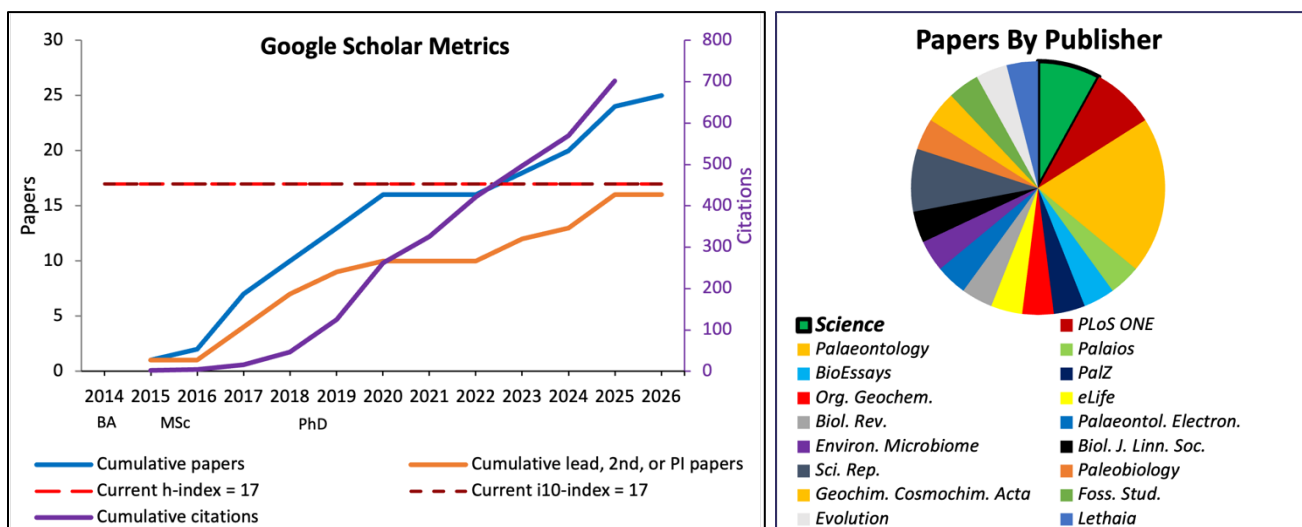
3) Smithwick, F, Mayr, G, **Saitta, ET**, Benton, M, and Vinther, J (2017) On the purported presence of fossilised collagen fibres in an ichthyosaur and a theropod dinosaur. *Palaeontology* 60(3), 409–422. DOI:10.1111/pala.12292

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: 279

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: 668



## Unpublished Preprints

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, 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.**

Saitta, ET (Under review) **Are we underfitting dinosaur growth models? Methodologies reflect interpretations of paleobiology.**

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.**

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## Achievements†, Funding\*, & Accepted Proposals

<b>CNPEN Proposal - Brazilian Center for Research in Energy and Materials (Campinas, Brazil)</b> PI: Kerber, BB. Co-Proposers: <u>Saitta, ET</u> , Prado, GMEM, Silva, EP "Can Raman spectroscopy really reveal biosignatures in fossil dinosaurs?"	2024
<b>Paleontological Society Norman Newell Early Career Grant*</b> "Characterizing the diagenesis of sex hormones"	2023
<b>The Palaeontological Association Research Grant*</b> "Characterizing the diagenesis of sex hormones"	2022
<b>Honoring Our Professors' Excellence (HOPE) Award†</b> University of Illinois Chicago Office of Campus Housing award as nominated by students	2022
<b>University of Chicago Fossil Lab Postdoctoral Funding*</b> Postdoctoral salary & research funds through the Sereno Fossil Lab, University of Chicago	2021-2024
<b>Bass Postdoctoral Fellowship*</b> Postdoctoral salary & research funds through the Negaunee Integrative Research Center, Field Museum of Natural History	2018-2020
<b>Paleontological Society Stephen Jay Gould Award*</b> Paleontological Society Student Research Grant: "Material properties of keratinous structures"	2017

<b>The Daniel Pidgeon Fund*</b>	2017
The Geological Society research grant: "Creating fossils in the lab: sediment-based maturation experiments"	
<b>Bob Savage Memorial Fund*</b>	Received four times – 2016-2017
University of Bristol palaeobiology graduate student award	
<b>Jackson Student Travel Grant*</b>	2016
Society of Vertebrate Paleontology award to support student travel to their annual meeting	
<b>M.Sc. Award: Distinction (University of Bristol)†</b>	2015
<b>University of Bristol Alumni Foundation Travel Grant*</b>	Received twice – 2015
University of Bristol student award to support conference attendance costs	
<b>Magna Cum Laude (Princeton University)†</b>	2014
<b>Elected to the Society of Sigma Xi†</b>	2014
<b>Senior Thesis Poster Award in Behavior†</b>	2014
Granted by Princeton University's Department of Ecology and Evolutionary Biology	
<b>Office of the Dean of the College Senior Thesis Research Funding*</b>	2013
Princeton University academic research grant	
<b>Fred Fox Fund*</b>	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: <u>Saitta, ET</u> ( <i>wrote initial draft of proposal</i> )	
"Experimental & Molecular Study of Plant Fossilization from Fossil Lake Lagerstätte"	
Requested Amount: \$794,906	

### Teaching

<b>Adjunct Lecturer, Benedictine University (Lisle, IL)</b>	
Lead, sole course instructor: Ecology Laboratory BIOL 4364 (2 sections)	Fall 2025
Section instructor: Principles of Biology Lab BIOL 1199 (1 section)	Fall 2025
<b>Adjunct Lecturer, University of Illinois Chicago</b>	
Lead, sole course instructor: Introduction to Paleontology EAES/BIOS 360	Spring 2022
<b>Guest Lecturer, University of Chicago</b>	
Dinosaur Science BIOS 23100: "Taphonomy & Footprints" lecture	Spring 2023
<b>Postdoctoral Field Teaching Assistant, University of Chicago</b>	
Dinosaur Science BIOS 23100: Week-long dinosaur excavation in Wyoming	Summer 2023
<b>Graduate Teaching Assistant / Demonstrator, University of Bristol</b>	
Evolution of the Biosphere EASC30008 ( <i>Master's level course</i> )	Fall 2015
Geobiology EASC20024	Spring 2017
Geology I: Evolution of Earth and Life EASC10001	Spring 2017
Environmental Geoscience: Climate and Ecology EASC10002	Fall 2015

## Advising, Training, & Mentoring

<b>Mentoring</b>		<b>2018-present</b>
My sediment-encased maturation method has been used* in collaboration with graduate students from:		
<b>University of Hong Kong</b> – Ph.D. student; Two chapters of 2021 thesis		
<b>University of California Davis</b> – Ph.D. student		
<b>University of Chicago</b> – Ph.D. student		
<b>University of Bristol</b> – 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		
<b>Advising</b>		<b>2018-2020</b>
Undergraduate students: summer intern* & volunteer supervising, <b>Field Museum</b>		
*Supported by University of Chicago's Jeff Metcalf Internship Program; became study coauthor & later pursued science in graduate school		
<b>Training</b>		<b>Spring 2022</b>
Graduate teaching assistant training, <b>University of Illinois Chicago</b>		

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## Academic Presentations

(Lead presenter only)

<b>Society of Vertebrate Paleontology annual meeting</b>		
Minneapolis, Minnesota, USA: Talk & Poster		<b>10/2024</b>
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		<b>10/2023</b>
Sexing dinosaurs: Possible detection of trace sex hormones in fossils as old as the Jurassic and the thermal stability of estrogen		
*Virtual Conference: Poster – <i>*abstract accepted but later withdrawn due to registration cost</i>		<b>11/2021</b>
Relaxing selective pressures on complex structures: feather evolution after flight loss in recent birds		
Virtual Conference: Poster		<b>10/2020</b>
Non-avian dinosaur eggshell calcite contains ancient, endogenous amino acids		
Brisbane, Australia: Talk		<b>10/2019</b>
Sexual dimorphism in non-avian dinosaurs and other extinct taxa: the importance of effect size statistics in paleontology		
Albuquerque, New Mexico, USA: Talk ( <i>Romer Prize Session</i> )		<b>10/2018</b>
Molecular stability and mobility: Protein diagenesis in open and closed taphonomic systems		
Calgary, Alberta, Canada: Talk ( <i>Romer Prize Session</i> )		<b>8/2017</b>
Creating fossils in the lab: replicating fossilization using sediment-based maturation		
Salt Lake City, Utah, USA: Talk		<b>10/2016</b>
The taphonomy of keratin in archosaurs		
<b>Palaeoproteomics and Archaeology, Society for Techniques and Advances (affiliate of The International Society for Biomolecular Archaeology)</b>		
PAASTA Talk Series: Virtual Talk		<b>7/2024</b>
Eggshell Time Capsules: Ancient Amino Acids		
<b>Weizmann Institute of Science</b>		
Kimmel Center for Archaeological Science Seminar: Virtual Talk		<b>4/2024</b>
Eggshell Time Capsules: Ancient Amino Acids		
<b>The University of Chicago</b>		
Darwinian Sciences Cluster Retreat: Poster		<b>9/2023</b>
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		<b>10/2021</b>
Molecular fossil hunting: analytical and experimental taphonomy		

<b>The University of Copenhagen (Denmark)</b> Globe Institute: Talk Molecular fossil hunting: analytical and experimental taphonomy	7/2022
<b>The University of Illinois Chicago</b> EAES Departmental Seminar: Talk Molecular fossil hunting: analytical and experimental taphonomy	3/2022
<b>Field Museum of Natural History</b> A. Watson Armour Seminar Series: Talk Mesozoic molecules: revealing information from fossils through taphonomy	9/2019
<b>Argonne National Laboratory</b> Advanced Photon Source: Coffee Talk Exceptional fossils: feathers, soft tissues, and ancient molecules	8/2019
<b>Palaeontological Association annual meeting</b> London, UK Talk - Approaching sexual dimorphism in non-avian dinosaurs and other extinct taxa Poster - Life inside a dinosaur bone: a thriving microbiome	12/2017
Lyon, France 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	12/2016
Cardiff, UK Poster - The taphonomy of keratin in archosaurs Talk - Evidence for sexual dimorphism in the plated dinosaur <i>Stegosaurus mjosi</i> (Ornithischia, Stegosauria) from the Morrison Formation (Upper Jurassic) of western USA	12/2015
<b>International Workshop on Konservat-Lagerstätten</b> Cork, Ireland: Talk Dinosaur eggshell calcite as a closed system: 'molecular Konservat-Lagerstätten'	7/2017

## Popular Science Articles

<b><i>The Conversation</i></b> "Fossilized dinosaur eggshells can preserve amino acids, the building blocks of proteins, over millions of years" "Did male and female dinosaurs differ? A new statistical technique is helping answer the question" "How some dinosaur discoveries might be wishful scientific thinking" Contributor to Longrich, NR "Dinosaur bones: hidden life revealed inside them"	4/2024 1/2022 11/2017 7/2019
<b><i>TheScienceBreaker</i> (partner with Université de Genève)</b> "Long-dead dinosaurs support new life"	11/2019

## Radio & Podcast Appearances

<b><i>The Primal Biology Show</i></b> Interview discussing my career and insights	7/2025
<b><i>The Best of our Knowledge</i></b> Interview with WMAC Northeast Public Radio discussing Saitta & Kaye (2025, <i>Scientific Reports</i> )	6/2025
<b><i>The Skeptics Guide to the Universe</i></b> Twenty-minute interview on the podcast discussing Saitta <i>et al.</i> (2019, <i>eLife</i> )	6/2019
<b><i>Palaeocast</i></b> Hour-long interview on the podcast discussing Saitta <i>et al.</i> (2019, <i>eLife</i> )	6/2019

<i>These Vibes Are Too Cosmic</i> Hour-long interview with Princeton, New Jersey, radio show on my research in general	5/2018
<b>BBC: National &amp; Bristol radio</b> Interviews discussing Saitta (2015, <i>PLoS ONE</i> )	4/2015

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### **Institutional Advancement & Fundraising**

<b>Field Museum Giving Day Ambassador</b> Helped with grassroots fundraising for “Nurturing Future Scientists”	10/2019
<b>Field Museum Private Collections Tour</b> Showcased oversized fossil collections to Chairman’s Circle member	8/2019
<b>Field Museum Donor Private Meeting</b> Talk given to museum donors at a small breakfast meeting	6/2019
<b>Field Museum Pop-up</b> Informal meet and greet with Field Museum board members at downtown ‘dig site’ pop-up	6/2019
<b>Field Museum Members’ Night</b> Discussed my work with Field Museum members	5/2019
<b>Sue Celebration</b> Presented my work to Field Museum members and donors	1/2019
<b>Field Encounters</b> Talk given to Field Museum donors entitled “Creating synthetic fossils in the lab”	11/2018

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### **Peer Reviewer**

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

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### **Editorial Roles**

<b>Associate Editor</b> , <i>Frontiers in Ecology &amp; Evolution</i> , Paleocology section	2025-present
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### **Public Outreach**

<b>Fossil Crates Live!</b> Expert guest on members-only Zoom call series hosted by Dr. Brian Curtice	3/2025
<b>Sereno Fossil Lab Open Houses</b> Engaged southside community in monthly open houses for the newly opened Fossil Lab at the University of Chicago	2024
<b>Southside Science Festival</b> Presenter at a booth for a University of Chicago science communication event for local community	9/2023
<b>Dinosaurs of the Sahara</b> Assisted Sereno Lab in preparing displays and specimens for public exhibit at the Cleveland Great Lakes Science Center	5/2023

<b>Gloucester Museum “Dinosaurs” Talks and Workshops</b> Feathers and colour in dinosaurs	9/2017
<b>Bristol Dinosaur Project</b> Educational outreach program directed at children	2015
<b>Jurassic Quest</b> Educational day directed at young children involving fossil displays	7/2014
<b>The Billings Clinic</b> Presented to TV/print media and the public about use of CT scanner for undergraduate thesis	7/2013
<b>Princeton Undergraduate Research and Public Service Symposium</b> Alumni Day showcase of independent research	2013

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## Societies & Groups

<b>The Society for the Study of Evolution</b>	2025-present
<b>The Society of Vertebrate Paleontology</b>	2013-Feb 2026
<b>The Palaeontological Association</b>	2015-present
<b>The Paleontological Society</b>	2010-present
<b>DinoSoc</b> University of Bristol student paleontology society	2014-2017
<b>Bristol University Geology and Geoscience Society</b>	2014-2017
<b>myFOSSIL.org</b> Beta tester	2015
<b>Princeton Undergraduate Geosciences Society</b>	2012-2014
<b>University of Bristol Snowsports Club</b> Snowboard race team	2015-2018
<b>University of Bristol Athletics and Cross Country Club</b> Cross country	2014-2018
<b>Princeton University Cannon Dial Elm Club</b>	2012-2014
<b>Princeton University Varsity Track and Field</b> Non-recruited ‘walk-on’ pole vaulter & sprinter	2010-2014

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## Experience & Networks

### International collaborative research network:

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

**Paleontological (prospecting, quarrying, preparation), geological, & 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)
- Independent paleontological field & preparatory lab experience over seven summers: Montana
- Princeton University: geology (Spain, France, Utah, New Mexico, the Catskills, Kentucky, Delaware Water Gap, & Yellowstone National Park) & biology (Bermuda & Yellowstone National Park)
- Dinosoc: UK

**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
- Amino acid racemization analysis
- DNA, protein, & lipid extraction
- Time-of-flight secondary ion mass spectrometry
- Radiocarbon analysis
- Attenuated total reflectance Fourier-transform infrared spectroscopy
- Synchrotron X-ray fluorescence
- Raman spectroscopy
- Portable X-ray fluorescence
- X-ray diffraction
- White light scanning
- 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

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## Newly Described Taxa

*Spinosaurus mirabilis* (Serenó *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