Evan Thomas Saitta

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Employment

The Field Museum of Natural History **2018-present**

Postdoctoral researcher
Integrative Research Center, Section of Earth Sciences
Supervisor: Dr. Peter Makovicky

Education

University of Bristol

Ph.D. in Geology **2015-2018**
Advisor: Dr. Jakob Vinther
Thesis: The taphonomy of soft tissues and the evolution of feathers

M.Sc. in Palaeobiology (Distinction) **2014-2015**
Advisor: Dr. Jakob Vinther
Thesis: The taphonomy of keratin in archosaurs

Princeton University **2010-2014**

B.A. in Ecology and Evolutionary Biology (Magna Cum Laude)
Advisor: Dr. James Gould
Thesis: Paleobiology of North American stegosaurs: Evidence for sexual dimorphism
Overall GPA: 3.68
EEB GPA: 3.88
Biology GPA (EEB & Molecular Biology): 3.87

Publications

Saitta, ET, Liang, R, Lau, CY, Brown, CM, Longrich, NR, Kaye, TG, Novak, BJ, Salzberg, S, Donohoe, P, Dickinson, M, Vinther, J, Bull, ID, Brooker, RA, Martin, P, Abbott, GD, Knowles, TDJ, Penkman, K, and Onstott, TC (2018) Life inside a dinosaur bone: a thriving microbiome. ***bioRxiv*** **preprint. doi: https://doi.org/10.1101/400176**

Saitta, ET, Kaye, TG, and Vinther, J (2018) Sediment-encased maturation: a novel method for simulating diagenesis in organic fossil preservation. ***Palaeontology*****. doi: https://doi.org/10.1111/pala.12386**

Saitta, ET, Clapham, C, and Vinther, J (2018) Experimental subaqueous burial of a bird carcass and compaction of plumage. ***Paläontologische Zeitschrift*****. doi: https://doi.org/10.1007/s12542-018-0411-y**

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**

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**

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**

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

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

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

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

R Packages

'Momocs'. Authors: Vincent Bonhomme, Sandrine Picq, Julien Claude with suggestions and contributions from Cedric Gaucherel, Sarah Ivorra, Ricardo Kriebel, Neus Martinez, Marcelo Reginato, Evan Saitta, Norbert Telmon, Asher Wishkerman. 2015.

Achievements and Grants

Paleontological Society Stephen Jay Gould Award **2017**

The Daniel Pidgeon Fund **2017**

- The Geological Society research grant

Bob Savage Memorial Fund Won 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 Won 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**

- Princeton academic research award and grant through the Office of Religious Life at Princeton University

Teaching Assistance

Geobiology **Spring 2017**

- Professor: Phillip Donoghue

Geology 1: Evolution of Earth and Life **Spring 2017**

- Professor: Phillip Donoghue & Emily Rayfield

Evolution of the Biosphere **Fall 2015**

- Professor: Michael Benton

Environmental Geoscience: Climate and Ecology **Fall 2015**

- Professor: Pru Foster

Presentations and Outreach

Society of Vertebrate Paleontology annual meeting

- Calgary, Alberta, Canada **8/2017**
  - Talk (Romer Session): Creating fossils in the lab: replicating fossilization using sediment-based maturation
- Salt Lake City, Utah, USA **10/2016**
  - Talk: The taphonomy of keratin in archosaurs

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**
  - Informal talk: Taphonomy 2.0: Experimental P/T maturation using sediment as a taphonomic filter to investigate soft tissue preservation
  - Poster: Primitive contour feathers in paravian dinosaurs and the evolution of avian plumage
- Cardiff, UK **12/2015**
  - Talk: Evidence for sexual dimorphism in the plated dinosaur *Stegosaurus mjosi* (Ornithischia, Stegosauria) from the Morrison Formation (Upper Jurassic) of western USA
  - Poster: The taphonomy of keratin in archosaurs

International Workshop on Konservat-Lagerstätten

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

The Conversation **11/2017**

- "How some dinosaur discoveries might be wishful scientific thinking"

These Vibes Are Too Cosmic **5/2018**

- Hour-long interview with Princeton, New Jersey, radio show on my research

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.

Princeton Senior Thesis Poster Presentation **2014**

Princeton Undergraduate Research and Public Service Symposium **2013**

The Billings Clinic **7/2013**

- Presented to TV/print media and the public regarding my use of the hospital's CT scanner for my undergraduate thesis research

Societies and Groups

The Society of Vertebrate Paleontology **2013-present**

The Palaeontological Association **2015-present**

The Paleontological Society **2010-present**

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

Princeton Undergraduate Geosciences Society **2012-2014**

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

myFOSSIL.org **2015-present**

- Beta tester

Princeton University Varsity Track and Field **2010-2014**

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

University of Bristol Snowsports Club **2015-2018**

Cannon Dial Elm Club - Princeton University eating club **2011-2014**

Skills

Experience in:

- Museum collections research
- R-based morphometrics, statistics, and data analysis
- Histology
- CT scanning
- Decay and maturation experiments
- Scanning electron microscopy
- Energy-dispersive X-ray spectroscopy
- Pyrolysis-gas chromatography-mass spectrometry
- Laser stimulated fluorescence imaging
- Amino acid racemization analysis
- DNA and protein extraction
- Time-of-flight secondary ion mass spectrometry
- Radiocarbon analysis
- Attenuated total reflectance Fourier-transform infrared spectroscopy

Field and preparatory lab experience with the Field Museum in Montana and the Royal Tyrell Museum at Dinosaur Provincial Park in Alberta, Canada. Seven years of independent paleontological field and preparatory lab experience in Montana. Field experience through Princeton University in geology (Spain, France, Utah, New Mexico, Catskills, Kentucky, Delaware Water Gap, and Yellowstone National Park) and biology (Bermuda and Yellowstone National Park).