

Franklin Duffy Phone: 412-605-7936 Email: fduffy@uchicago.edu

Curriculum Vitae Mailing Address: 804 E 54th Street Chicago IL 60615

Education

University of Chicago September 2024-
PhD, Committee on Evolutionary Biology (Expected May 2030)
Advisor: Michael Coates

University of Colorado, Boulder May 2022
BA, Double Major in Geology and Ecology & Evolutionary Biology
Thesis: “*Analysis of the Likely Defecators of Greensand Coprolites and the Possible Implications for a Warm Late Cretaceous Arctic Ecosystem.*”
Advisor: Karen Chin
Summa Cum Laude

Peer-Reviewed Publications

Duffy, F., Chin, K., Cumbaa, S., & Wilson, L. (2026). Coprolite evidence for marine vertebrate migration in the warm Cretaceous Arctic. *Historical Biology*.
<https://doi.org/10.1080/08912963.2026.2670771>

Grants & Awards

Grants

Negaunee Foundation Field Work Grant (\$5,000) 2025
Paleontological Society Student Research Grant (\$1,200)

Awards

Outstanding Geology Student Award, University of Colorado (\$1,000) 2022
Outstanding Geology Major Kolber Scholarship, University of Colorado (\$1,500) 2021

Conference Presentations

Pardo J, **Duffy F**, Mann A, No metamorphosis in tetrapods across the fin-to-limb transition
Canadian Society of Vertebrate Paleontology, 2026 Annual Meeting, Drumheller, Alberta,
Abstract Volume. (p.69) (**Talk**)

Duffy F, Coates M, Hagadorn J, Lyson T, A new Late Devonian sarcopterygian assemblage from the Parting Formation of Central Colorado Society of Vertebrate Paleontology, 85th Annual Meeting, Birmingham, United Kingdom, Meeting Program and Abstracts. (p.223) **(Talk)**

Duffy F, Petermann H, Dougan L, Chin K, Lyson T, Fossils in Focus: Assessing the Potential of Accelerating Digital Preparation with AI-Assisted Segmentation Across Multiple Fossil Types. Society of Vertebrate Paleontology, 83rd Annual Meeting, Cincinnati, Ohio, Meeting Program and Abstracts. (p.150) **(Talk)**

Duffy F, Petermann H, Dougan L, Chin K, Lyson T, Fossils in Focus: Assessing the Versatility of AI-assisted Segmentation across Multiple Fossil Types. ToScANA 2023 Meeting, Austin, Texas **(Talk)**

Duffy F. Decoding the Fossil Record: The Benefits of AI in the Segmentation of Fossils. Inaugural Dragonfly User Group Meeting, Ann Arbor, Michigan **(Talk)**

Duffy F, Chin K, Wilson L, Cumbaa S, Coprolite Evidence for Migration in the Warm Cretaceous Arctic. Society of Vertebrate Paleontology, 82nd Annual Meeting, Toronto, Canada, Meeting Program and Abstracts. (p.131) **(Talk)**

Fieldwork

Colorado (Parting Formation); Eagle, Garfield, Gunnison, La Plata counties, CO 2023-Present
Project lead; coordinated site access, planned field trips, organized fieldwork logistics, and lead teams during excavation of historic sites and prospecting of new localities.

Linton (Upper Freeport Coal); Jefferson county, OH 2025-Present
Team Member; Collected coal cannel pieces from tailings piles,

Braidwood (Mazon Creek); Will county, IL 2025
Team Member; prospected tailings piles

Marmarth (Hell Creek/Fort Union Formation); Slope and Bowman Counties, ND 2023
Team Member; supported fieldcamp operations, educated volunteers, prospected microsites

Denver Basin (Denver 1 sequence); El Paso county, CO 2022-2023
Team Member; prospected microsites

Previous Professional Experience

Denver Museum of Nature and Science, Denver, CO

June 2022 - September 2024

Digital Research Technician

- Leading and contributing to scientific publications involving methods of digital research in the field of paleontology
- Developing new methods and best practices for utilizing artificial intelligence to segment CT data of fossil specimens
- Leading and contributing to fieldwork in the Chaffee Group, the Denver Basin, and the Hell Creek/Fort Union Formation
- Digital preparation of fossils utilizing the following methods: CT data modification, manual segmentation of CT data, creation of meshes, post-processing methods to modify and animate meshes in Blender and PreForm and creating high quality figures for publications, 3D printing resin models of scanned fossil specimens.
- Accessioning and collections management of fossils from the Chaffee Group
- Developing standards for digital asset creation and management of digital data
- Training staff to use surface scanners and surface scanning software.
- Developing programming for and participating in regular science outreach table events showcasing digital research in paleontology

Denver Museum of Nature and Science, Denver, CO

Summer 2022

Digital Research Lab Paid Intern

Began work on developing novel methods of using artificial intelligence to segment CT data and learned the workflow of the Digital Research Lab

University of Colorado Museum Collections, Boulder, CO

Spring 2020

Fossil Prep Lab Volunteer

Sorted microfossils for various projects.

The La Brea Tar Pits, Los Angeles, CA

Summer 2019

Fossil Lab Volunteer

Learned and applied common and unique fossil prep techniques including removal of liquid asphalt from bones, water cleaning of bones, bone reconstruction and stabilization using glue and acetone, as well as micro-fossil sorting for teeth, bone fragments, and plant material.

University of California Irvine

Summer 2019

Keck Carbon Cycle Lab Assistant

Picking and leaching of Foraminifera and Coccolithophore microfossils.

Teaching

Term	School	Course Title	Course Code	Role	Enrollment	Mean Evaluation
W 2026	University of Chicago	Chordates	BIOS 22250	TA	10	5.00/5.00

Invited Talks

Public Talks

Royal Gorge BLM Office Canon City

2025

Public Outreach

Field Museum

- Public outreach table events (Member Night, Meet a Scientist) 2025

Denver Museum of Nature and Science

2022-2024

- Hosting tours of the digital research lab, fossil prep lab, and museum collections
- Answering letters from students to the Department of Earth Science,
- Public outreach table events (Science on the Spot, Member Celebration Night, Girls and Science, Educator Night, Colorado Springs Cool Science Carnival)

Sternberg Science Camps

- Lead a segmentation workshop

Affiliations

Geologic Society of America

2022-Present

NoCTURN

2023-Present

Paleontological Society

2023-Present

Society of Vertebrate Paleontology

2021-Present

Western Interior Paleontological Society

2023-Present

Skills

Equipment: FormLabs Form 3L 3D printer, Artec Surface Scanners (Space Spider and Leo)

Software: ImageJ, Dragonfly, Blender, Adobe Illustrator and Photoshop, Avizo, Artec Studio, Digital Asset Management Systems

Laboratory and Research: Segmentation, data manipulation, and image processing of 3D volumetric and surface data.