

Hadeel Saad

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I use museum data (extant and extinct) and spatial analyses to investigate how marine fish diversity and distributions have shifted through the Cenozoic. By combining quantitative paleobiology and biogeography, I explore how ancient ecosystems inform the origins of modern tropical diversity.

Education

2021 – pres.	Ph.D. Candidate- University of Michigan (UM) Department of Earth and Environmental Sciences Advisor: Matt Friedman Thesis: Cenozoic biogeography and biodiversity of tropical marine fishes of the Indo-West Pacific Expected graduation 2027
2020 – 2016	BS in Biology - The George Washington University (GWU) Concentration: Ecology Evolution & the Environment Minor: Bioinformatics

Publications

2026	El-Sayed S, Friedman M, Salem B, Gohar A, Al-Ashqar S, Amin M, El-Saka H, Saad H , Speijer R, Sallam H; Rise of modern marine fishes captured in an early Paleocene Lagerstätte. Science Advances, 2026; 12 ,eaec8978. DOI: 10.1126/sciadv.aec8978
2025	Troyer EM, Rivero-Vega R, Cui X, Zhu M, Qiao T, Saad H , Figueroa RT, Andrews JV, Clement A, Lebedev O, Higgins R, Igielman B, Pierce S, Giles S, Friedman M. Macroevolutionary role reversals in the earliest radiation of bony fishes. Current Biology, 2025; 35 , 4631-4641.e3. DOI: 10.1016/j.cub.2025.08.008
2023	Friedman M, Andrews JV, Saad H , El Sayed S. The Cretaceous–Paleogene transition in spiny-rayed fishes: surveying “Patterson’s Gap” in the acanthomorph skeletal record. Geologica Belgica, 2023; 26 (1-2), 1–23. DOI: 10.20341/gb.2023.002
2021	Hughes LC, Ortí G, Saad H , Li C, White WT, Baldwin CC, Crandall KA, Arcila D, Betancur R. Exon probe sets and bioinformatics pipelines for all levels of fish phylogenomics. Molecular Ecology Resources, 2021; 21 : 816–833. DOI: 10.1111/1755-0998.13287

Fellowship & Grants (Total = \$338,600)

2023	Rackham Pre-Candidate research grant (UM) \$1,500
2023	Cashner Travel (ASIH) \$1,000
2023	Heidemarie Johnson Grant (Paleo Society) \$3,000
2023	National Science Foundation Graduate Research Fellowship Program: Biodiversity & Systematics \$125,000
2023	Museum Studies Fellow Program (UM) \$10,000
202- 2,3,5	Rackham Travel Grant (UM) \$4,000

202-2,4	Turner Research Grant (UM) \$4,100
2021	Rackham Merit Fellowship (UM) ~\$60,000
2019	Harlan Undergraduate Research Fellow (GWU) \$5,000
2018	Summer Training Academy for Research Success (UC San Diego) Advisor Dr. Kaustuv Roy \$5,000
2016-20	Presidential Academic Scholarship (GWU) \$120,000

Awards

2026	Best Graduate Student Poster; Michigan Geophysical Union
2026	Best Student Poster; the International Biogeography Society Aarhus 2026
2019	Undergraduate Student Employee of the Year (GWU)

Professional Development

2023	Museum Studies Fellowship
2022	Science Communication Fellowship (UM)
2017	The NASA-BMSIS Young Scientist Program in Space Biosciences (San José State University); Advisor Dr. Andro Rios

Conference Presentations (Selected)

2025	Saad,H. Friedman, M. ; The paleontological perspective of marine tropical fishes throughout the Paleogene and Neogene of the Indo West Pacific; Taipei, Taiwan
2023	Saad,H. Friedman, M. ; The Cenozoic collapse of the West Tethyan biodiversity hotspot: a test using the fish otolith fossil record; Indo Pacific Fish Conference; Auckland, New Zealand
2023	Saad,H. Friedman, M. A Putative spadefish (Acanthomorpha: Ehippidae) from the Indo - Pacific region and its implications for marine fish biogeography. Great Lakes Student Paleoconference; Ann Arbor, Michigan
2023	Saad,H. Friedman, M.; The Cenozoic collapse of the West Tethyan biodiversity hotspot: a test using the fish otolith fossil record; International Otolith Symposium; Viña del Mar, Chile
2018	Saad,H. Neu, A. Roy, K. Determining marine molluscan larval diversity at Scripps Pier using DNA barcoding. Summer Research Conference at University of California, San Diego (UCSD); San Diego, CA

Conference Posters (Selected)

2025	Killbrew, R Saad,H. Friedman, M; Re-evaluation of a fossil fish from the Miocene of Indonesia; Undergraduate Research Opportunity Program Spring Symposium; Ann Arbor, Michigan
2024	Saad,H. Friedman, M; Description of a spadefish (Acanthomorpha: ehippidae) from the Pakistan and its implications for marine fish biogeography in the Paleogene; Joint Meeting of Ichthyologists and Herpetologists; Pittsburgh, Pennsylvania
2024	Saad,H. Friedman, M; Inventory of Inner Ear Bones: Database of otoliths throughout the Cenozoic; North American Paleontological Convention; Ann Arbor, Michigan

2023	Flemming A. Bart H, Blackwell A, Buckner JC, Fuller N, Melbourne L, Mims B, Saad H. , Ware J. Creating and building community in natural history museums to enhance the reach and care of natural history collections: BlackInNHM; The Society for the Preservation of Natural History Collections; San Francisco, California
2022	Saad,H. Friedman, M. ; A Putative spadefish (Acanthomorpha: Ehippidae) from the Indo-Pacific region and its implications for marine fish biogeography. Society of Paleontology ; Toronto, Canada
2019	Saad,H. Peterson, R., Hughes, L. Data Fishing: Curating a Library of Actinopterygii Transcriptomic Data. Harlan Presentation; Washington, DC

Professional Experience

2026	Museum Assistant UMMP 100th; Temporary Exhibit (UMNHM)
202- 4,5	Assisted in creation of Black in Natural History traveling exhibit; University of Florida (2024), American Museum of Natural History (2025)
2017	Editor and writer for “Shifting the Focus: Centering Indigenous and DEI Practices in UMMAA’s Collection Management Policy” primarily on “Global Collection”- Capstone Project for Museum Studies Program
2024	Museum Assistant Sea Change: Ancient Fossils New Discoveries? ; Temporary Exhibit (UMNHM)
2022	Research Assistant Matt Friedman’s Lab (UM)
2019-20	Lab Manager for GWU: BISC 1111 & 1112 Introduction to Biology
2018-21	Research assistant for Guillermo Orti’s Fishlife lab (GWU)

Teaching Experience

2025	Earth Camp: Earth Camp for Rising 11th graders (Michigan geology and to find evidence of past lake level changes)
2025	Paleontology lab (EARTH 419) weekend trip to Paleozoic sites in Midwest
2024	What Really Happens at Night in a Museum?: Multidisciplinary Approaches for Exploring Ecology and Evolution- co-instructor
202-3, 5	UM Course Analytical Paleobiology: “Coverage Based Rarefaction”
2022	Graduate Student Instructor for EARTH 201: Introduction to Geography Lecture & Labs
2021	Instructor for BISC 1112: Introduction to Biology Lab: The Biology of Organisms (GWU)
2020	Instructor for BISC 1111: Introduction to Biology Lab: Cells & Molecules (GWU)
2019	Undergraduate Teaching Assistance for BISC 1112: Introduction to Biology Lab: The Biology of Organisms (GWU)

Professional Service

Peer review: Contributions from the Museum of Paleontology (UM)

2026	Michigan Geophysical Union Judge- Undergraduate posters
2025	Joint Meeting of Ichthyologists and Herpetologists- Graduate secretary & outreach chair; Minneapolis, Minnesota
2024	Joint Meeting of Ichthyologists and Herpetologists- Graduate secretary & social committee; Pittsburgh, Pennsylvania
2024	North American Paleontology Conference - Student chair and DEI committee; Ann Arbor, MI
2023	Great Lakes Student Paleo Conference - Organizing committee for the 5th Great Lakes Student Paleo conference; Ann Arbor, MI
2021- pres.	Black in Natural History Museums- Founding Member & Website Manager

Invited Speaker

2025	"No Bones" Seminar at the Smithsonian National Museum of Natural History "Hopping Hotspots: Comparing the marine Cenozoic records of invertebrates and fishes "
2025	Academic Sinica, Taiwan "Overview of fossil record of Marine Fishes in the Cenozoic"
2024	Interdisciplinary Global Change Biology (IGCB) Meeting "Measuring diversity patterns through time" with coding workshop
2024	Panelist for Opening Exhibit "Black in Natural History" at University of Florida
2024	The Friends of the University of Michigan Museum of Paleontology; "Origin of the (W)indo-Pacific Biodiversity Hotspot"
2023	Queensland Museum "A paleontological perspective on the origin of the Indo-West Pacific biodiversity hotspot"

Online Talks/Videos

2022	Evolutionary Biologist Video (Black in Natural History Museum)
2022	Importance of Museums for Exhibit in University of UMNHM
2021	Moderator: Black in Natural History Role Models (Black in Natural History Museum Week)

Outreach

2024	ID day UMNHM; matching fossil and extant morphology
2024	ID day UMNHM; Paleo puzzle
2024	Guest speaker for Scouts for Earth Science Badge
202-3, 5	Women in Science and Engineering night at UMNHM
2022-5	Scientist Spotlight at UMNHM
2019	Insect Biodiversity at Adams Morgan Oyster Bilingual school
2017	Volunteer at USA Science & Engineering Festival; Washington, DC
2017-9	Evolution and Biodiversity Ambassador at The Smithsonian Natural History Museum; total of 120 service hours

Multimedia Projects

2025	Lino prints of Reef fishes for Joint Meeting of Fish and Herpetology's book raffle
2022	Endemism in the Red Sea presented at UM Ecology of Fishes Film Festival with Anderson
2017	The Amazing Hydrogen Bond

Educational Material

2018	GWU Lab Textbook: Introduction to Biology Lab: Cells & Molecules
2017	Water We Learning

Workshops/ Online courses

2025	Physalia; Introduction to R Shiny; January 27th-28 th , 2025
2024	Physalia; Biogeography in R; September 5-11, 2024
2023	PaleoSynthesis; Analytical Paleobiology School; August 21- September 8 2023
2023	Physalia; Mapping and Spatial Analysis in r: using r as a GIS; October 23 - 27 2023
2023	Physalia; Paleobiology in R; January 12-17, 2023

Collections/Field Work

2026	Fieldwork: Carboniferous fish material from Bear Gulch, Montana – 5 days
2026	Fieldwork: Carboniferous fish material around Pittsburgh, Pennsylvania – 5 days
2026	Collection visit: Museum of Natural History; Copenhagen, Denmark - 2 days
2025	Fieldwork: Carboniferous fish material around Pittsburgh, Pennsylvania - 8 days
2025	Fieldwork: Carboniferous fish material from mines in Lansing, Michigan- 1 day
2025	Collection visit: National Museum of Natural History; Paris, France - 5 days
2024	Fieldwork: Carboniferous fish material around Pittsburgh, Pennsylvania -2 day
2023	Collection visit: Queensland Museum Tropics; Townsville, Queensland, Australia - 3 days
2023	Collection visit: Hessisches Landesmuseum Darmstadt; Darmstadt, Germany- 4 days
2023	Collection visit: Naturalis Biodiversity Center; Leiden, Netherlands - 5 days
2023	Collection visit: National Museum of Natural History; Paris, France - 5 days
2018	Fieldwork: Scripps Pier collecting in the Mollusks Larvae; San Diego, CA – 10 weeks

Mentorship (Selected)

Raven Killbrew

B.S. Earth and Environmental Science; Concentration: Paleontology

Anna Zhao

B.S. Ecology and Evolutionary Biology; Minor: Paleontology

Recommendation for Stocker-Nesbitt fund (received)