

CURRICULUM VITAE

JAMES G. SAULSBURY

Postdoctoral Researcher

University of Kansas

Biodiversity Institute / Department of Ecology & Evolutionary Biology

jgsauls@ku.edu

ACADEMIC QUALIFICATIONS

Academic degrees

Ph.D., University of Michigan, Ann Arbor, 2021

Department of Earth and Environmental Sciences and Museum of Paleontology

“Comatulid crinoids in a changing ocean: predation, respiration, and shifting centers of diversity”

B.A., University of California, Berkeley, 2015

Department of Integrative Biology

Employment history

2023– Present: Postdoctoral Researcher, Biodiversity Institute and Department of Ecology & Evolutionary Biology, University of Kansas

2021– 2023: Postdoctoral Researcher, Natural History Museum, University of Oslo

2017, 2018, 2019: Museum Curatorial Assistant, Museum of Paleontology, University of Michigan, Ann Arbor

2015 November – 2016 August: Research Technician, Museum of Paleontology, University of California, Berkeley

Teaching experience

2024: Lead Instructor for fourth-year undergraduate seminar, “Big Ideas in Ecology & Evolution.” University of Kansas.

2020: Graduate Student Instructor for “Introductory Oceanography.” University of Michigan, Ann Arbor

2018, 2019: Graduate Student Instructor for “Evolution and Extinction.” University of Michigan, Ann Arbor

Grants and awards

2020-21: Rackham Predoctoral Fellowship (support for final year of Ph.D.)

2020, 2022: Ermine Cowles Case Memorial Student Award (Saulsbury & Zamora 2020, \$200; Saulsbury & Baumiller 2022, \$200)

2018: Society of Systematic Biology Graduate Student Research Award (\$2000)

2017: Rackham Graduate Student Research Grant (\$1500)

2017: Paleontological Society N. Gary Lane Student Research Grant (\$800)

2017, 2018: Scott Turner Award (\$1925, \$1557)

2016-present: Rackham Merit Fellowship (continued support throughout Ph.D.)

PUBLICATIONS AND PRESENTATIONS

Peer-reviewed journal articles

1. **Saulsbury, J.G.**; Parins-Fukuchi, C.T.; Wilson, C.J.; Reitan, T.; Liow, L.H. 2024. [Age-dependent extinction and the neutral theory of biodiversity](#). *Proceedings of the National Academy of Sciences*. Press in [KU Today](#).
2. Voje, K.L.; **Saulsbury, J.G.**; Starrfelt, J.; de Latorre, D.V.; Rojas, A.; Kinneberg, V.B.; Liow, L.H.; Wilson, C.J.; Saupe, E.; Grabowski, M. 2023. [Measurement theory and paleobiology](#). *Trends in Ecology and Evolution*.
3. **Saulsbury, J.G.**; Baumiller, T.K. 2022. [Dispersals from the West Tethys as the source of the Indo-West Pacific diversity hotspot in comatulid crinoids](#). *Paleobiology* 49 (1): 39-52.
4. **Saulsbury, J.G.**; Baumiller, T.K. 2020. [Predation as an explanation for a latitudinal gradient in arm number among stalkless crinoids](#). *Journal of Biogeography* 47: 2657-2670.
5. **Saulsbury, J.G.**; Moss, D.K.; Ivany, L.C.; Kowalewski, M.; Lindberg, D.R.; Gillooly, J.F.; Heim, N. A.; McClain, C.R.; Payne, J.L.; Roopnarine, P.D.; Schoene, B.; Goodwin, D.; Finnegan, S. 2020. [Idiographic and nomothetic approaches to heterogeneity are complementary: Response to comments on “Evaluating the influences of temperature, primary production, and evolutionary history on bivalve growth rates.”](#) *Paleobiology* 46 (2): 275-277.
6. **Saulsbury, J.G.** 2019. [Crinoid respiration and the distribution of energetic strategies among marine invertebrates](#). *Biological Journal of the Linnean Society* 129 (1): 244-258.
7. **Saulsbury, J.G.**; Zamora, S. 2019. [The nervous and circulatory systems of a Cretaceous crinoid: preservation, paleobiology, and evolutionary significance](#). *Palaeontology* 63 (2): 243-253.
8. **Saulsbury, J.G.**; Moss, D.K.; Ivany, L.C.; Kowalewski, M.; Lindberg, D.R.; Gillooly, J.F.; Heim, N. A.; McClain, C.R.; Payne, J.L.; Roopnarine, P.D.; Schoene, B.; Goodwin, D.; Finnegan, S. 2019. [Evaluating the influences of temperature, primary production, and evolutionary history on bivalve growth rates](#). *Paleobiology* 45 (3): 405-420.
9. Zamora, S.; Aurell, M.; Veitch, M.; **Saulsbury, J.G.**; López-Horgue, M.A.; Ferratges, F.A.; Arz, J.A.; Baumiller, T.K. 2018. [Environmental distribution of post-Palaeozoic crinoids from the Iberian and south-Pyrenean basins, NE Spain](#). *Acta Palaeontologica Polonica* 63 (4): 779-794.

Preprints & submitted articles

1. **Saulsbury, J.G.**; Parins-Fukuchi, C.T.; Wilson, C.J.; Reitan, T.; Liow, L.H. Reply to Evan Johnson: Holistic evaluation of ecological models in paleobiology. In Review, *Proceedings of the National Academy of Sciences*.
2. **Saulsbury, J.G.**; Baumiller, T.K.; Sprinkle, J.T. New comatulid crinoids from the Early Cretaceous Glen Rose Formation: paleobiology and evolutionary relationships of an extreme form. In Press, *Journal of Paleontology*.
3. Parins-Fukuchi, C.T.; **Saulsbury, J.G.** The consequences of ancestor-descendant relationships on trees. In Review, *Systematic Biology*.

Invited Talks

Population biology and the fossil record: new insights into age-dependent extinction, community turnover and the rise and fall of species. October 2024. Smithsonian National Museum of Natural History Seminar Series.

Modeling the fates of biotas: Hotspots, extinctions, and abundance trajectories in the marine fossil record. March 2024. University of Kansas Department of Ecology and Evolutionary Biology Seminar Series.

Origin of the modern Indo-West Pacific marine diversity hotspot by dispersal from the ancient West Tethys in comatulid crinoids. September 2021. University of Michigan Department of Ecology and Evolutionary Biology Seminar Series.

Conference presentations (talk unless otherwise indicated)

- Saulsbury, J.G.;** Liow, L.H. 2024. Biological meaning in the rise and fall of fossil species. 12th North American Paleontological Convention. Ann Arbor.
- Lee, Jaemin; Contreras, D.; **Saulsbury, J.G.;** Upchurch, G.; Looy, C. 2024. Large fruits in a Late Cretaceous tropical forest shows earlier expansion of angiosperm dispersal strategies. XI International Organization of Paleobotany Conference. Prague, Czechia.
- Saulsbury, J.G.;** Piwoni-Piórewicz, A.; Kukliński, P.; Di Martino, E.; Liow, L.H. 2023. The evolution of skeletal mineralogy in cheilostome bryozoans: Paleontological and phylogenetic perspectives. GSA Annual Meeting & Exposition.
- Saulsbury, J.G.;** Baumiller, T.K.; Sprinkle, J.T. 2022. The crinoid fauna of the Early Cretaceous Glen Rose Formation, including a new family of feather stars. 6th International Paleontological Congress. Khon Kaen, Thailand. (Poster)
- Saulsbury, J.G.;** Liow, L.H. 2022. Fossil history of a contrarian latitudinal diversity gradient in cheilostome bryozoans. 6th International Paleontological Congress. Khon Kaen, Thailand.
- Saulsbury, J.G.;** Parins-Fukuchi, C.; Reitan, T.; Wilson, C.J.; Liow, L.H. 2022. Age-dependent extinction and the neutral theory of biodiversity. GSA Annual Meeting & Exposition.
- Saulsbury, J.G.** 2022. Better models for understanding patterns of range size across latitude. European Society for Evolutionary Biology 2022 Congress, Prague.
- Saulsbury, J.G.;** Baumiller, T.K. 2020. Dispersals and the shifting marine biodiversity hotspot: an exploration with living and fossil crinoids. GSA Annual Meeting & Exposition. Virtual conference.
- Saulsbury, J.G.** 2019. Reconciling conflicting testimonies on the origin of the marine biodiversity hotspot. Great Lakes Student Paleoconference, Ann Arbor.
- Garcia, A.; **Saulsbury, J.G.;** Aurell, M.; Zamora, S. 2019. A new shallow water Aptian Echinoderm-Lagerstätte from Spain. Palaeontological Association's Annual Meeting. Valencia, Spain.
- Saulsbury, J.G.;** Baumiller, T.K. 2018. Niche breadth as a link between feeding morphology and extinction risk: an exploration with extant crinoids. GSA Annual Meeting & Exposition. Indianapolis.
- Saulsbury, J.G.;** Zamora, S. 2018. Analysis of 3D comparative data for paleobiological inference: the circulatory system of a giant fossil crinoid as a case study. 5th International Paleontological Congress. Paris.
- Saulsbury, J.G.** 2018. Body size, allometry, and an unexplored mode of respiration in crinoids. 16th International Echinoderm Conference. Nagoya.
- Saulsbury, J.G.;** Messing, C.G.; Baumiller, T.K. 2018. Coelomic Skeletal Structures in Fossil and Recent Featherstars (Comatulida, Crinoidea): Diversity, Function, and Taxonomic Implications. Society for Integrative and Comparative Biology Annual Meeting 2018. San Francisco.
- Saulsbury, J.G.;** Samuel Zamora. 2017. Internal anatomy and paleophysiology of the Cretaceous crinoid *Decameros ricordeanus*. 2017 Great Lakes Student Paleoconference, Ann Arbor.
- Saulsbury, J.G.;** Finnegan, S.; Lindberg, D.R.; Moss, D.K.; Ivany, L.C.; Gilooly, J.F., Goodwin, D.; Heim, N.A.; Kowalewski, M.; McClain, C.R.; Payne, J.L.; Roopnarine, P.D.; Schoene, B.R.

2017. Evaluating the influences of temperature, productivity, and phylogenetic constraint on bivalve growth rates. 2017 GSA Annual Meeting & Exposition. Seattle.

Saulsbury, J.G.; Contreras, D.L. 2016. Dispersal ecology of a Late Campanian flora from south-central New Mexico; implications for the breadth and timing of angiosperm reproductive strategies. 2016 GSA Annual Meeting & Exposition. Denver. (Poster)

OTHER PROFESSIONAL QUALIFICATIONS

Service, outreach, and mentorship

2024–present: Associate Editor, *Paleobiology*

2022: Session chair, 2022 GSA Annual Meeting & Exposition: “Paleontology: Diversity/Origination/Extinction.”

2022: Research mentor to a Norwegian University of Science and Technology undergraduate researcher.

2020: Guest instructor, Mentored Research, Wake Forest University

2019: Special lecture (“Fossils, marine biodiversity, and the continuing story of crinoid evolution”) to the [Friends of the Museum of Paleontology](#)

2017, 2019: Co-organizer, 1st and 3rd [Great Lakes Student Paleoconference](#)

2018–2019: Coach, Fossils event of Science Olympiad for Slauson Middle School

2017–2021: Research mentor to University of Michigan undergraduates

- Rebecca To and Xiaoyang Song, 2020: “Sympatric speciation in the sea”
- Rebecca To, 2018-present: “Featherstar phylogeny”
- Emma Carley, 2019: “Digitizing natural history: processing and analyzing a vast historical SEM collection”
- Kia Billings, 2017-2018: “Exploring crinoid morphology with computed tomography”

Reviewing

Reviewer for: *Paleobiology*, *Methods in Ecology and Evolution*, *Swiss Journal of Paleontology*, *Palaios*, *Nature Ecology & Evolution*, *Nature Communications Earth & Environment*, *NSF SGP*, *Global Ecology & Biogeography*, and *PLOS ONE*.

Professional Membership

Geological Society of America, Paleontological Society

Professional development

2022 November: RevBayes Phylogenetics Workshop, Natural History Museum, University of Oslo

2021 July: Evolutionary Quantitative Genetics Workshop, Friday Harbor Laboratories, University of Washington (Virtual)

2019 June: Midwest Phylogenetics Workshop, Itasca Biological Station, University of Minnesota

2017 July: Paleontological Society Field Course in Stratigraphic Paleobiology, Montana