

## CURRICULUM VITAE

### JAMES G. SAULSBURY

**Postdoctoral Researcher**

**University of Kansas**

**Biodiversity Institute / Department of Ecology & Evolutionary Biology**

[jgsauls@ku.edu](mailto: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 CONFERENCE TALKS

#### *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. 12<sup>th</sup> 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. 5<sup>th</sup> International Paleontological Congress. Paris.

**Saulsbury, J.G.** 2018. Body size, allometry, and an unexplored mode of respiration in crinoids. 16<sup>th</sup> 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, 1<sup>st</sup> and 3<sup>rd</sup> [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