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JAMES G. SAULSBURY

University of Oslo
Natural History Museum
Zoologisk Museum
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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

2021 October – Present: Postdoctoral Research Fellow, Natural History Museum, University of Oslo
2021 September – October: Postdoctoral Researcher, Museum of Paleontology, University of Michigan, Ann Arbor
2017 May – August, 2018 May – August, 2019 May – August: 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

2020 January – May: Graduate Student Instructor for "Introductory Oceanography." University of Michigan, Ann Arbor
2018 January – May, 2019 January – May: 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. Age-dependent extinction and the neutral theory of biodiversity. Proceedings of the National Academy of Sciences (In Review; also on bioRxiv).
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 (In Press).
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, LC..; 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 & in prep

1. **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 prep.

2. Parins-Fukuchi, C.T.; **Saulsbury, J.G.** Functional morphological innovation corresponds to shifting lines of genetic least resistance. *bioRxiv*.

3. **Saulsbury, J.G.** Permutation tests for comparative data. *bioRxiv*.

Conference presentations (talk unless otherwise indicated)

Saulsbury, J.G.; Piwoni-Piórewicz, A.; Kukliński, P.; Di Martino, E.; Liow, L.H. 2023. Phylogenetic and paleontological perspectives on the evolution of skeletal mineralogy in cheilostome bryozoans. 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. 2021. Origin of the modern Indo-West Pacific marine diversity hotspot by dispersal from the ancient West Tethys in comatulid crinoids. University of Michigan Department of Ecology and Evolutionary Biology Seminar Series.

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. 2020. Latitude and range size in the shallow marine benthos. 5th World Conference on Marine Biodiversity. 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

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*.

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