

Curriculum Vitae
Scott Evans
He/Him/His
American Museum of Natural History
Invertebrate Paleontology
New York, NY 10024
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EDUCATION

- Ph.D. University of California, Riverside** September 2019
Program: Department of Earth Sciences
Dissertation Topic: The Biological Characteristics, Ecological Role and Evolutionary Significance of *Dickinsonia* and Other Modular Organisms of the Ediacara Biota
Advisor: Dr. Mary Droser
Funding: NASA Earth and Space Science Fellowship (2017-2019)
- M.S. University of California, Riverside** June 2015
Program: Department of Earth Sciences
Advisor: Dr. Mary Droser
- B.A. SUNY Geneseo, magna cum laude** May 2013
Majors: Geology and Mathematics

APPOINTMENTS

- Assistant Curator of Invertebrate Paleontology, AMNH** July 2025-
Assistant Professor, Richard Gilder Graduate School July 2025-
Assistant Professor of Earth-Life Interactions, Florida State University Dec 2022-July 2025
Department of Earth, Ocean and Atmospheric Science
- Agouron Geobiology Fellowship, Virginia Polytechnic Institute.** Jan 2021-Dec 2022
Advisor: Dr. Shuhai Xiao
- Peter Buck Postdoctoral Fellow, Smithsonian NMNH** Sep 2019-Dec 2020
Advisor: Dr. Douglas Erwin

SELECT RESEARCH GRANTS

- NASA Exobiology, PI 2025-2027
“Investigating spatial and temporal variability of Earth's oldest animal communities within the Canadian Cordillera” (\$741,131)
- First Year Assistant Professor Program, FSU 2023
“The Oldest Animal Fossils from Northwest Canada” (\$19,998)
- Arthur James Boucot Research Grant, Paleontological Society 2022
“Expanding the horizons of erniettomorphs from the Great Basin, USA: Taxonomy, taphonomy and paleoecology of the last members of the Ediacara Biota in Laurentia” (\$5,000)
- NASA Exobiology, Co-I 2021
“A welcome mat for complex life: Implications of diverse and ubiquitous Ediacaran organic surfaces for the development of animals and the recognition of microbial structures on other planets” (\$310,432)

PUBLICATIONS

- [25] Boan, P.C., **Evans, S.D.**, and Droser, M.L., 2024. And now for something completely random: Spatial distributions of *Dickinsonia* on the Ediacaran seafloor. *Global and Planetary Change*, v. 238, 104467.
- [24] **Evans, S.D.**, Hughes, I.V., Hughes, E.B., Dzaugis, P.W., Dzaugis, M.P., Gehling, J.G., García-Bellido, D.C. and Droser, M.L., 2024. A new motile animal with implications for the evolution of axial polarity from the Ediacaran of South Australia. *Evolution & Development*, e12491.
- [23] **Evans, S.D.**, Smith, E.F., Vayda, P., Nelson, L.L., and Xiao, S. 2024 The Ediacara Biota of the Wood Canyon Formation: Latest Precambrian macrofossils and sedimentary structures from the southern Great Basin. *Global and Planetary Change*, v. 238, 104547.
- [22] Hughes, I.V., **Evans, S.D.**, and Droser, M.L., 2024. Discovery of an Ediacaran bilaterian with an ecdysozoan affinity from South Australia. *Current Biology*. Doi: 10.1016/j.cub.2024.10.030
- [21] Boan, P.C., **Evans, S.D.**, Hall, C.M.S., and Droser, M.L., 2023. Spatial distributions of *Tribrachidium*, *Rugoconites* and *Obamus* from the Ediacara Member (Rawnsley Quartzite), South Australia. *Paleobiology*, v. 49, 602-620.
- [20] **Evans S.D.**, Hunt, G., Gehling, J.G., Sperling, E.A., and Droser, M.L. 2023. Species of *Dickinsonia* Sprigg from the Ediacaran of South Australia. *Palaeontology*, e12635.
- [19] Droser, M.L., **Evans, S.D.**, Trahan, L.G., Surprenant, R.L., Hughes, I.V., Hughes, E.B., and Gehling, J.G. 2022. What happens between depositional events, stays between depositional events: The significance of Organic Mat Surfaces in the capture of Ediacara communities and the sedimentary rocks that preserve them. *Frontiers in Earth Science*, v. 10, 826353.
- [18] **Evans S.D.**, Tu, C., Rizzo, A., Surprenant, R.L., Boan, P.C., McCandless, H., Marshall, N., Xiao, S., and Droser, M. L. 2022. Environmental drivers of the first major animal extinction across the Ediacaran White Sea-Nama transition. *Proceedings of the National Academy of Science*, v.119, e2207475119.
- [17] Mitchell, E.G., **Evans, S.D.**, Chen, Z., and Xiao, S., 2022. A new approach for investigating spatial relationships of ichnofossils: A case study of Ediacaran-Cambrian animal traces. *Paleobiology*, v.48, 557-575.
- [16] Boyer, D.L., Martinez, A.M., **Evans, S.D.**, Cohen, P.A., Hadaad, E.E., Pippenger, K.H., Love, G.D., and Droser, M.L., 2021. Living on the Edge: The impact of protracted oxygen stress on life in the late Devonian. *Palaeogeography, Palaeoclimatology, Palaeoecology*, v. 566, 110226.
- [15] **Evans, S.D.**, Droser, M.L., and Erwin, D.H., 2021. Developmental processes in Ediacara macrofossils. *Proceedings of the Royal Society of London, Biology*, v. 288, 20203055.
- [14] **Evans, S.D.**, Gehling, J.G., Erwin D.H., and Droser, M.L. 2021. Ediacara growing pains: Modular addition and development in *Dickinsonia costata*. *Paleobiology*, v. 48, 83-98.
- [13] Droser, M.L., Tarhan, L.G., **Evans, S.D.**, Surprenant, R.L., and Gehling, J.G., 2020. Biostratigraphy of the Ediacara Member (Rawnsley Quartzite, South Australia): Implications for Depositional Environments, Ecology and Biology of Ediacara Organisms. *Interface Focus*, v. 10, 20190100.
- [12] **Evans, S.D.**, Hughes, I.V., Gehling, J.G., and Droser, M.L., 2020. Discovery of the oldest bilaterian fossil from the Ediacaran of South Australia. *Proceedings of the National Academy of Sciences*, v. 117, 78445-7850.

- [11] Xiao, S., Gehling, J.G., **Evans, S.D.**, Hughes, I.V., and Droser, M.L., 2020. Probable benthic macroalgae from the Ediacara Member, South Australia. *Precambrian Research*, v. 350, 105903.
- [10] Droser, M.L., **Evans, S.D.**, Dzaugis, P.W., Hughes, E.B., and Gehling, J.G., 2019. *Attenborites janeae*: A new enigmatic organism from the Ediacara Member (Rawnsley Quartzite), South Australia. *Australian Journal of Earth Sciences*, v. 67, 915-921.
- [9] Dzaugis, P.W., **Evans, S.D.**, Droser, M.L., Gehling, J.G., and Hughes, I.V., 2019. Stuck in the Mat: *Obamus coronatus*, A new benthic organism from the Ediacara Member, Rawnsley Quartzite, South Australia. *Australian Journal of Earth Sciences*, v. 67, 897-903.
- [8] **Evans, S.D.**, Dzaugis, P.W., Droser, M.L., and Gehling, J.G., 2019. You can get anything you want from Alice’s Restaurant Bed: Exceptional preservation and an unusual fossil assemblage from a newly excavated bed (Ediacara Member, Nilpena, South Australia). *Australian Journal of Earth Sciences*, v. 67, 873-883.
- [7] **Evans, S.D.**, Gehling, J.G., and Droser, M.L., 2019. Slime travelers: Early evidence of animal mobility and feeding in an organic mat world. *Geobiology*, v.17(5), 490-509. Cover image.
- [6] **Evans, S.D.**, Huang, W., Gehling, J.G., Kisailus, D., and Droser, M.L., 2019. Stretched, mangled and torn: Responses of the Ediacaran fossil *Dickinsonia* to variable forces. *Geology*, v. 47(11), 1049-1053. Cover image.
- [5] Droser, M.L., Gehling, J.G., Tarhan, L.G., **Evans, S.D.**, Hall, C.M.S., Hughes, I.V., Hughes, E.B., Dzaugis, M.E., Dzaugis, M.P., Dzaugis, P.W. and Rice, D., 2018. Piecing together the puzzle of the Ediacara Biota: Excavation and reconstruction at the Ediacara National Heritage site Nilpena (South Australia): *Palaeogeography, Palaeoclimatology, Palaeoecology*. v. 513, 132-145.
- [4] **Evans, S.D.**, Diamond, S.W., Droser, M.L., and Lyons, T.W., 2018. Dynamic oxygen and coupled biological and ecological innovation during the second wave of the Ediacara Biota. *Emerging Topics in Life Sciences*, ETL20170148.
- [3] Geeza, T.J., Gillikin, D.P., Goodwin, D.H., **Evans, S.D.**, Watters, T., and Warner, N.R., 2018. Controls on magnesium, manganese, strontium, and barium concentrations recorded in freshwater mussel shells from Ohio. *Chemical Geology*, v. 526, 142-152.
- [2] **Evans, S.D.**, Droser, M.L., and Gehling, J.G., 2017. Highly regulated growth and development of the Ediacara macrofossil *Dickinsonia*. *PLoS ONE*, v. 12(5), e0176874.
- [1] **Evans, S.D.**, Droser, M.L., and Gehling, J.G., 2015. *Dickinsonia* lift off: Evidence of current derived morphologies. *Palaeogeography, Palaeoclimatology, Palaeoecology*, v. 434, 28-33.

TEACHING AND MENTORSHIP

Instructor:

Florida State University, Tallahassee:

- “*Invertebrate Paleontology*” GLY 3610C (Fall 2024) designed and taught 4-unit course and associated lab for as an upper division elective for Geology and Environmental Science undergraduate majors and minors
- “*Applications in Paleobiology*” GLY 5695 (Spring 2024) designed and taught 3-unit course for Geology graduate students
- “*History of Earth Systems*” ESC 3100C (Fall 2023, Spring 2025) designed and taught 4-unit course with lab for Geology and Environmental Science undergraduate majors and minors

University of California, Riverside:

- “*History of Life*” GEO 003/BIO 010 (Summer 2015, 2016, 2017) designed and taught 4-unit general education course with lab
- “*Advanced topics in Invertebrate Paleontology*” GEO 251 (Winter 2021) co-taught virtual graduate seminar with Adelaide University on Ediacaran turnover and environmental change

Guest Lecturer:

- Lafayette: “*Ediacaran Extinction and Environmental Change*” (Spring 2023)
- Virginia Tech: “*Sedimentology, Stratigraphy and Paleontology*” (Spring 2021)
- Union College: “*Paleontology, Paleobiology and Paleoecology*” (Spring 2020)

Teaching Assistant:

University of California, Riverside:

- “*At Home in the Universe*” (Winter 2016, 2017)
- “*Headlines in the History of Life*” (Spring 2014, 2015, 2016)
- “*Principles of Invertebrate Paleobiology and Paleoecology*” (Fall 2014)
- “*Earth Resources and Sustainability*” (Winter 2014)

State University of New York at Geneseo:

- “*Our Geological Environment*” (Spring 2013)
- “*Geologic History of Life*” (Fall 2012)
- “*Invertebrate Paleontology*” (Spring 2012)

FSU Graduate Student Supervisor: Maya Roselli (M.S. 2023–), Martin Fernandez (M.S. 2024–), Peter Bellocq (Ph.D. 2024–).

FSU Graduate Student Committee Member: Nathaniel Evenson, (Ph.D. 2022–); Mahdi Maaleki Moghadam (Ph.D.–); Anwen Zhou (Ph.D. 2022–); Brittany Duffey (M.S. 2023–).

FSU Honors Thesis Committee Member: Vaughn Lugo (2023-2024).

FSU Undergraduate Research Assistants: Trinity Dixon (Spring 2023), Marissa Miller (Spring 2023), Blakely Webb (Spring 2023-Spring 2024), Cori Buckelew (Fall 2023-Spring 2024), Gunnar Oakley (Fall 2023-Spring 2024), Ava Osborne (Spring 2024), James Rehmman (Spring 2024).

Internship Mentor:

Florida State University, Undergraduate Research Opportunity Program (Zoe Fazio): “*Building a Virtual Museum: Digitizing Fossils and Minerals of the EOAS Collections*” (Fall 2024-Spring 2025)

Smithsonian NMNH Virtual Internship (Rebecca Chandross, Jane Sullivan):

“*Examining growth patterns and variability in fossils of Earth’s oldest animals*” (Summer 2020)

University of California, Riverside (Sheryl Bermudez):

“*Growth patterns of Dickinsonia and Spriggina*” (Spring, Fall 2016).

Tutor State University of New York at Geneseo – Geology Learning Center (2012-2013)

SELECT PROFESSIONAL SERVICE AND COMMUNITY OUTREACH

Women in Math, Science & Engineering lab visit – Hosted FSU students from the WIMSE program for a lab visit to discuss methods and careers in paleontology (Feb 2025)

FSU graduate student interview committee – Faculty interviewer for all potential graduate students to the Geology program at FSU (2023-2025)

NSF GRFP panel – Reviewed graduate student fellowships in Geology (Jan 2025)

Pittsburgh Geologic Society – Invited talk for public event hosted by the PGS (Nov 2024)

Ediacaran Subcommittee – Elected voting member (2024–)

FSU Paleo Club – Faculty Representative (2024–)

Ask a Scientist booth – panel member answering questions about science at the First Friday arts festival to the local community of Tallahassee (Sep 2024)

First Nations of Northwestern Canada – presented research occurring on traditional lands to community groups from the Sahtú Dene (Apr 2024) and Na-Cho Nyäk Dun (May 2024)

FSU EOAS Digitization project – using 3D scanning and photogrammetry to digitize the EOAS collections of fossils and minerals and build complementary website (2023–)

NASA FINNEST panel – Reviewed applications for graduate student fellowships in Astrobiology and Exobiology (May 2023)

Florida Geologic Survey field trip – Co-led a fieldtrip examining Cenozoic fossils for FSU graduate students, faculty and the Florida State Geologic Survey (May 2023)

New York State Paleontological Society – ‘Environmental change and Earth’s first major extinction of animal life’ invited speaker (Dec 2022)

Grant writing mentor – Workshop advisor for Virginia Tech undergraduates and graduate students applying to the NSF Graduate Research Fellowship Program (Fall 2021, 2022)

Skype-A-Scientist – Virtual presentations for elementary school classrooms, afterschool library programs, geology clubs, cub scout troops, etc. (2020–)

Symposium convener and chair – Geological Society of America Annual Meeting. T94: The Neoproterozoic Earth-Life System (Oct 2021)

Paleo Art – Edge of Extinction guest expert – Smithsonian NMNH virtual summer camp discussing the intersection of art and paleontology (July 2020)

Contribution to Pearson Biology textbooks – Edited chapters on early animal evolution for the 12th edition of *BIOLOGY* and the 3rd edition of *Biology in Focus* (June 2020)

Smithsonian Senate of Scientists talk – ‘Flipping over the oldest animal fossils’ (May 2020)

Fossil Friday – [Smithsonian Science How Video Webinar on the oldest fossil animals](#) (Apr 2020)

Scientist Is In – Live demonstrations on the Ediacara Biota on the floor of the Smithsonian NMNH (Feb 2020)

Symposium convener and chair – North American Paleontological Conference. (June 2019)

Field trip coordinator and leader – Geoscientist Development (GEODE) Program; Leading students from the Riverside Unified School District on field trips to the Salton Sea, Death Valley and Joshua Tree National Park to promote careers in the geosciences (2016-2019)

Science Olympiad coach – Riverside Stem Academy; “GeoLogic Mapping” (2014-2016), “Rocks and Minerals” (2017-2018)

Student Volunteer – Geology Outreach Program (GEOP); Hands-on educational outreach program in the Riverside Unified School District and at various community events in Riverside, CA (2013-2019)

SELECT MEDIA

Ask-A-Scientist Gaming – “[Paleobiology, Ancient Marine Creatures, and Tony Hawk Underground](#)” (Feb 2025)

Evolution Soup – “[The First Animal? An Ediacaran Enigma](#)” (Nov 2024)

Newsweek – “[Paleontologists May Have Discovered Earth's Oldest Moving Animal](#)” (Oct 2024; story covered by over 100 additional news outlets)

Science Sessions podcast – “[Revisiting the history of animal extinctions](#)” (Jan 2023)

The Economist – “[The oldest known mass extinction](#)” (Nov 2022; story covered by over 100 additional news outlets)

COSMOS – “[Behind the scenes: new national park offers an exclusive window into life at the dawn of time](#)” (July 2021)

SYFY Wire – “[Yes, we really share genes with headless creatures from half a billion years ago](#)” (Mar 2021; story covered by 28 additional news outlets)

Quirks and Quarks interview with Bob McDonald – “[Fish fingers and bilateral symmetry – new fossils shed light on critical stages of evolution](#)” (May 2020)

Scientific American 60-second Science podcast – “[Tiny wormlike creature may be our oldest known ancestor](#)” (Mar 2020)

SELECT HONORS AND AWARDS

Smithsonian National Museum of Natural History

- Science Researcher Education Action Team Peer Recognition Award 2020

University of California, Riverside

- Outstanding Teaching Assistant 2016-2017
- NSF Graduate Research Fellowship Program, Honorable Mention 2015
- University of California, Riverside Dean’s Fellowship 2013

State University of New York, Geneseo

- Phi Beta Kappa 2013
- Agate of Academic Achievement (awarded to the senior with the highest GPA) 2013
- Sigma Gamma Epsilon 2012-2013

SELECT CONFERENCE ABSTRACTS

Roselli, M., **Evans, S.D.**, Owens, J., Baird, G.C., and Scott, E., 2024. A case study in exceptional preservation: evaluating the role of anoxia in a new example of soft-bodied preservation from the Middle Devonian (Givetian). Geological Society of America Abstracts with Programs, Anaheim, CA (student talk MR).

Evans, S.D., 2024. A local perspective on global trends: Evaluating records at distinct Ediacaran fossil sites to constrain evolutionary dynamics during the dawn of animal life. North American Paleontological Convention, Ann Arbor, MI (invited keynote).

Droser M.L., **Evans, S.D.**, Hughes, I., Hughes, E., Dzaugis, P., et al., 2024. Astrobiology in the Field: Forging connections between paleontology and the local community in the South Australian outback. Astrobiology Science Conference, Providence, RI (talk MLD).

Evans, S.D., Simpson, C., and Droser, M.L., 2024. Oxygen and the Ediacara Biota: Investigating potential links between life and environments in the earliest animal communities. Astrobiology Science Conference, Providence, RI (talk).

Erwin, D.H., and **Evans, S.D.**, 2023. Using Evo-Devo to understand Ediacaran Macrofossils. Geological Society of America Abstracts with Programs, Pittsburgh, PA (invited talk DHE).

- Evans S.D.**, Erwin, D.H., Hughes, I.V., and Droser, M.L., 2023. Characters of the Ediacaran: Identifying complex traits in Earth's earliest animals. Geological Society of America Abstracts with Programs, Pittsburgh, PA (talk).
- Hughes, I.V., **Evans, S.D.**, and Droser, M.L., 2023. An ecdysozoan from the Ediacaran of South Australia. Geological Society of America Abstracts with Programs, Pittsburgh, PA (talk IH).
- Boan, P., **Evans, S.D.**, Hughes, I.V., Hughes, E.B., Dzaugis, P.W., and Droser, M.L., 2021. Spatial point pattern analysis of *Obamus coronatus* from Nilpena Ediacara National Park, South Australia. Geological Society of America Annual Meeting,, Portland, OR (talk PB).
- Evans, S.D.**, Xiao, S., Boan, P., Surprenant, R., McCandless, H., Rizzo, A., Marshall, N., Tu, C., and Droser, M. L., 2021. Lost in transition: Examining causes of biotic turnover in the Ediacaran. Geological Society of America Annual Meeting, Portland, OR (talk).
- Evans, S.D.**, Hunt, G.H., Gehling J.G., and Droser, M.L., 2021. This town was big enough for two: Reevaluating *Dickinsonia* species from South Australia. Ediacaran Taxonomy special conference, University of Oxford, UK (virtual talk).
- Droser, M.L., Tarhan, L.G., **Evans, S.D.**, Gehling, J.G., and Surprenant, R., 2020. Recognizing the Textures of Life: Implications of Diverse and Ubiquitous Ediacaran Organic Surfaces for the Detection of Microbial Structures on Other Planets. America Geophysical Union Annual Meeting (virtual poster MLD).
- Evans, S.D.**, Droser, M.L., and Erwin, D.H., 2020. A developing picture of nervous system evolution and body regionalization in the oldest fossil animals. The Palaeontological Association Annual Meeting (virtual poster).
- Evans, S.D.**, Droser, M.L., and Erwin, D.H., 2020. Developing a picture of early animal evolution: Identifying regulatory elements in the Ediacara Biota. Geological Society of America Annual Meeting (invited virtual talk).
- Evans, S.D.**, Huang, W., Diamond, C.W., Gehling J.G., Kisailus, D., and Droser, M.L., 2019. Stretched to the limit: Biomaterial properties of *Dickinsonia* and implications for complexity, oxygen demands and extinction. Geological Society of Australia, Melbourne, VIC (poster).
- Evans, S.D.**, Gehling J.G., and Droser, M.L., 2019. Mobile organisms in a mat dominated Ediacaran world. Geological Society of America Annual Meeting, Indianapolis, IN (talk).
- Evans, S.D.**, Diamond, C.W., Droser, M.L., Lyons, T.W. and Gehling, J.G., 2018. Impacts of fluctuating oxygen on the Ediacara Biota. International Conference on Ediacaran and Cambrian Sciences, Xi'an China (talk).
- Evans, S.D.**, Droser, M.L., and Gehling, J.G., 2016. Ontogeny of *Dickinsonia costata*: Growth and development of the iconic Ediacaran macrofossil. Palaeo Down Under 2, Adelaide, South Australia (talk).
- Wernette, S.J., **Evans, S.D.**, Hall, C.M.S., Droser, M.L., and Kolenko, R.L., 2016. Size frequency distribution biases in horseshoe crab molt assemblages: Implications for the fossil record. Geological Society of America Annual Meeting, Ontario, CA (talk SJW).
- Evans, S.D.**, Droser, M.L., Gehling, J.G., and Tarhan, L.G., 2014. *Dickinsonia* lift off: evidence of current derived morphologies. North American Paleontological Convention, Gainesville, FL (talk).
- Evans, S.D.**, Gillikin, D.P., Goodwin, D.H., Waters, G.T., Hartman, J., and Over, D.J., 2012. Trace elements in the freshwater bivalve *Lampsilis cardium* from the O'Shaughnessy Reservoir, Columbus, Ohio. Geological Society of America Abstracts with Programs, Charlotte, NC (poster).