

Curriculum Vitae

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Matthew Clapham

Professor

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EMPLOYMENT HISTORY

- Jul 2017 - Present Professor, Department of Earth and Planetary Sciences, University of California, Santa Cruz
- Jul 2013 - Jun 2017 Associate Professor, Department of Earth and Planetary Sciences, University of California, Santa Cruz
- Jul 2007 - Jun 2013 Assistant Professor, Department of Earth and Planetary Sciences, University of California, Santa Cruz
- Sep 2006 - Dec 2007 William E. White Postdoctoral Fellow, Department of Geological Sciences and Geological Engineering, Queen's University

EDUCATION

- 2006 Ph.D., Paleontology, Department of Earth Science, University of Southern California, Sep 2002 - Aug 2006
- 2002 M.S., Paleontology, Department of Geological Sciences and Geological Engineering, Queen's University, Sep 2000 - Jun 2002
- 2000 B.S., Geology, summa cum laude, Department of Earth and Ocean Sciences, University of British Columbia, Sep 1996 - Jun 2000

HONORS AND AWARDS

- 2023 *Geology* Exceptional Reviewer for 2022
- 2020 Pikaia award, Geological Association of Canada
- 2017 Fellow, Geological Society of America

SCHOLARLY AND CREATIVE WORK

- 59 New 2023 Foster, W.J., Allen, B.J., Kitzmann, N.H., Münchmeyer, J., Rettelbach, T., Witts, J.D., Whittle, R.J., Larina, E., **Clapham, M.E.**, Dunhill, A.M. 2023. How predictable are mass extinction events? *Royal Society Open Science*, v. 10, 221507. (Mar 2023)
- 58 New 2023 Allen, B.J., **Clapham, M.E.**, Saupe, E.E., Wignall, P.B., Hill, D.J., and Dunhill, A.M. 2023. Estimating spatial variation in origination and extinction in deep time: A case study using the Permian–Triassic marine invertebrate fossil record. *Paleobiology*, in press. (Feb 2023)
- 57 2021 Zhao, X.Y., Yu, Y.L., **Clapham, M.E.**, Yan, E., Chen, J., Jarzembowski, E.A., Zhao, X.D., and Wang, B. 2021. Early evolution of beetles regulated by the end-Permian deforestation. *eLife*, v. 10, e72692. (Nov 2021)
- 56 2021 Killam, D.¹, Al-Najjar, T., and **Clapham, M.E.** 2021. Giant clam growth in the Gulf of Aqaba is accelerated compared to fossil populations. *Proceedings of the Royal Society B*, v. 288, 20210991. (Aug 2021)
- 55 2021 Lamsdell, J.C. and **Clapham, M.E.** 2021. *Belinurus* Bronn, 1839 (Chelicerata, Xiphosura) has priority over *Bellinurus* Pictet, 1846. *Journal of Paleontology*, v. 95, p. 1352-1355. (Jul 2021)
- 54 2021 **Clapham, M.E.** 2021. Extinction: end-Permian mass extinction. In: *eLS 2021*, John Wiley & Sons Ltd: Chichester. (May 2021)
- 53 2021 Manojlovic, M.¹, and **Clapham, M.E.** 2021. The role of bioturbation-driven substrate disturbance in the Mesozoic brachiopod decline. *Paleobiology*, v. 47, p. 86-100. (Feb 2021)
- 52 2021 Arefifard, S. and **Clapham, M.E.** 2021. Cisuralian and Guadalupian global paleobiogeography of fusulinids in response to tectonics, ocean circulation and climate change. *Palaeogeography, Palaeoclimatology, Palaeoecology*, v. 561, 110052. (Jan 2021)
- 51 2021 **Clapham, M.E.** 2021. The End-Permian Mass Extinction. In: D. Alderton, S.A. Elias (eds.), *Encyclopedia of Geology, 2nd edition*, v. 3, p. 645-652.
- 50 2020 Killam, D.¹, Thomas, R.², Al-Najjar, T., and **Clapham, M.E.** 2020. Interspecific and intra-shell stable isotope variation among the Red Sea giant clams. *Geochemistry, Geophysics, Geosystems*, v. 21, e2019GC008669 (Jun 2020)
- 49 2020 Close, R.A., Benson, R.B.J., Saupe, E.E., **Clapham, M.E.**, and Butler, R.J. 2020. The spatial structure of Phanerozoic marine animal diversity. *Science*, v. 368, p. 420-424.

(Apr 2020)

- 48 2019 Schachat, S.R., Labandeira, C.C., **Clapham, M.E.**, and Payne, J.L. 2019. A Cretaceous peak in family-level insect diversity estimated with mark–recapture methodology. *Proceedings of the Royal Society B*, v. 289, 2019054. (Dec 2019)
- 47 2019 **Clapham, M.E.** 2019. Conservation evidence from climate-related stressors in the deep-time marine fossil record. *Philosophical Transactions of the Royal Society B*, v. 274, 20190223. (Nov 2019)
- 46 2019 **Clapham, M.E.** and Renne, P.R. 2019. Flood basalts and mass extinctions. *Annual Reviews of Earth and Planetary Sciences*, v. 47, p. 275-303. (May 2019)
- 45 2018 **Clapham, M.E.** 2018. Flipping the paleontology classroom: benefits, challenges, and strategies. Cohen, P.A., Lockwood, R., and Boush, L. (eds.), *Pedagogy and Technology in the Modern Paleontology Classroom. Elements of Paleontology*, p. 1-17. (Nov 2018)
- 44 2018 Killam, D.E.¹ and **Clapham, M.E.** 2018. Identifying the ticks of bivalve shell clocks: environmental causes of seasonal growth cessation. *Palaaios*, v. 33, p. 228-236. (Jun 2018)
- 43 2018 Solórzano Kraemer, M.M., Delclòs, X., **Clapham, M.E.**, Arillo, A., Peris, D., Jäger, P., Stebner, F., and Peñalver, E. 2018. Arthropods in modern resins reveal if amber accurately recorded forest arthropod communities, *Proceedings of the National Academy of Sciences*, v. 115, p. 6739-6744. (May 2018)
- 42 2018 Zhang, F.F., Romaniello, S.J., Algeo, T.J., Lau, K.V., **Clapham, M.E.**, Richoz, S., Herrmann, A.D., Smith, H., Horacek, M., and Anbar, A.D. 2018. Multiple episodes of extensive oceanic anoxia linked to global warming and continental weathering following the latest Permian mass extinction. *Science Advances*, v. 4, e1602921. (Apr 2018)
- 41 2018 Santiago-Materese, D.L., Iraci, L.T., **Clapham, M.E.**, and Chuang, P.Y. 2018. Chlorine-containing salts as water ice nucleating particles on Mars. *Icarus*, v. 303, p. 280-287. (Mar 2018)
- 40 2017 Vázquez, P.¹ and **Clapham, M.E.** 2017. Extinction selectivity among marine fishes during multi-stressor global change in the end-Permian and end-Triassic crises. *Geology*, v. 45, p. 395-398. (May 2017)
- 39 2017 **Clapham, M.E.** 2017. Organism activity levels predict marine invertebrate survival during ancient global change extinctions. *Global Change Biology*, v. 23, p. 1477–1485. (Mar 2017)
- 38 2016 **Clapham, M.E.**, Karr, J.A.¹, Nicholson, D.B., Ross, A.J., Mayhew, P.J. 2016. Ancient origin of high taxonomic richness among insects. *Proceedings of the Royal Society B*, v. 283(20152476), p. 1-6. (Feb 3 2016)
- 37 2016 Schaal, E.K., **Clapham, M.E.**, Rego, B.L., Wang, S.C., Payne, J.L. 2016. Comparative size evolution of marine clades from the Late Permian through Middle Triassic. *Paleobiology*, v. 42, p. 127-142. (Feb 1 2016)
- 36 2016 Condamine, F.L., **Clapham, M.E.**, Kergoat, G.J. 2016. Global patterns of insect diversification: towards a reconciliation of fossil and molecular evidence? *Scientific Reports*, v. 6(19208), p. 1-13. (Jan 18 2016)
- 35 2015 **Clapham, M.E.** 2015. Ecological consequences of the Guadalupian extinction and its role in the brachiopod-mollusk transition. *Paleobiology*, v. 41, p. 266-279. (Apr 2015)
- 34 2015 Karr, J.A.¹ and **Clapham, M.E.** 2015. Taphonomic biases in the insect fossil record: shifts in articulation over geologic time. *Paleobiology*, v. 41, p. 16-32. (Jan 2015)
- 32 2014 **Clapham, M.E.** 2014. History of insect body size. *AccessScience/McGraw-Hill Yearbook of Science & Technology*, p. 145-147.
- 33 2014 Ghisalberti, M., Gold, D.A., Laflamme, M., **Clapham, M.E.**, Narbonne, G.M., Summons, R.E., Johnston, D.T., and Jacobs, D.K. 2014. Canopy flow analysis reveals the advantage of size in the oldest communities of multicellular eukaryotes. *Current Biology*, v. 24, p. 305-309.
- 31 2013 Badyrka, K.A.¹, **Clapham, M.E.**, and Lopez, S. 2013. Paleoeology of brachiopod communities during the late Paleozoic ice age in Bolivia (Copacabana Formation, Pennsylvanian-Early Permian). *Palaeogeography, Palaeoclimatology, Palaeoecology*, v. 389, p. 56-65. (Oct 2013)
- 30 2013 Darroch, S.A.F., Laflamme, M., and **Clapham, M.E.** 2013. Population structure of the oldest known macroscopic communities from Mistaken Point, Newfoundland. *Paleobiology*, v. 39, p. 591-608. (Jun 2013)
- 29 2013 **Clapham, M.E.**, Fraiser, M.L., Marengo, P.J., and Shen, S.Z. 2013. Taxonomic composition and environmental distribution of post-extinction mixed faunas: constraints on short-term survival and the role of anoxia in the end-Permian mass extinction. *Palaeogeography, Palaeoclimatology, Palaeoecology*, v. 374, p.284-292. (Mar 2013)
- 28 2013 McGhee, G.R., **Clapham, M.E.**, Sheehan, P.M., Bottjer, D.J., and Droser, M.L. A new ecological-severity ranking of major Phanerozoic biodiversity crises. *Palaeogeography, Palaeoclimatology, Palaeoecology*, v. 370, p. 260-270. (Jan 2013)
- 27 2013 **Clapham, M.E.** 2013. Extinction: end-Permian mass extinction. In: *eLS 2013*, John Wiley & Sons Ltd: Chichester.
- 26 2012 **Clapham, M.E.** and James, N.P. 2012. Regional-scale marine faunal change in eastern Australia during late Paleozoic climate fluctuations and its relationship to local community restructuring.

- Palaios*, v. 27, p. 627-635. (Sep 2012)
- 24 2012 Marengo, P.J., Griffin, J.M., Fraiser, M.L., and **Clapham, M.E.** 2012. Paleoecology and geochemistry of Lower Triassic (Spathian) microbial mounds and implications for anoxia following the end-Permian mass extinction. *Geology*, v. 40, p. 715-718. (Jun 2012)
- 25 2012 **Clapham, M.E.** and Karr, J.A.¹ 2012. Environmental and biotic controls on the evolutionary history of insect body size. *Proceedings of the National Academy of Sciences, USA*, v. 109, p. 10927-10930. (Jun 2012)
- 23 2012 Payne, J.L. and **Clapham, M.E.** 2012. End-Permian mass extinction in the oceans: an ancient analog for the 21st century? *Annual Reviews of Earth and Planetary Sciences*, v. 40, p. 89-111. (May 2012)
- 22 2012 Dornbos, S.Q., **Clapham, M.E.**, Fraiser, M.L., and Laflamme, M. 2012. Lessons from the fossil record: the Ediacaran radiation, the Cambrian radiation, and the end-Permian mass extinction, in Solan, M., Aspden, R.J., and Paterson, D.M. (eds.), *Marine Biodiversity and Ecosystem Functioning*, Oxford University Press, p. 52-72.
- 19 2011 **Clapham, M.E.** and Payne, J.L. 2011. Acidification, anoxia, and extinction: a multiple regression analysis of extinction selectivity during the Middle and Late Permian. *Geology*, v. 39, p. 1059-1062.
- 20 2011 Fraiser, M.L., **Clapham, M.E.** and Bottjer, D.J. 2011. Mass extinctions and changing taphonomic processes: fidelity of the Guadalupian, Lopingian, and Early Triassic fossil records, in Allison, P.A. and Bottjer, D.J. (eds.), *Taphonomy: Process and Bias Through Time*, Springer, p. 569-590.
- 21 2011 **Clapham, M.E.** 2011. Ordination methods and the evaluation of Ediacaran communities, in Laflamme, M., Schiffbauer, J.D. and Dornbos, S.Q. (eds.), *Quantifying the Evolution of Early Life: Numerical Approaches to the Evaluation of Fossils and Ancient Ecosystems*, Springer, p. 3-21.
- 17 2010 **Clapham, M.E.** 2010. The late Paleozoic section at Arrow Canyon, Nevada: facies, cyclicity, and far-field record of the late Paleozoic ice age. *Pacific Section SEPM Fall Field Trip Guidebook*, Book 109, p. 1-42.
- 18 2010 **Clapham, M.E.** 2010. Faunal evidence for a cool boundary current and decoupled regional climate cooling in the Permian of western Laurentia. *Palaeogeography, Palaeoclimatology, Palaeoecology*, v. 298, p. 348-359.
- 15 2009 **Clapham, M.E.**, Shen, S.Z., and Bottjer, D.J. 2009. The double mass extinction revisited: reassessing the severity, selectivity, and paleobiogeographic pattern of the end-Guadalupian biotic crisis (Late Permian), *Paleobiology*, v. 35, no. 1, p. 33-51.
- 16 2009 Shen, S.Z., and **Clapham, M.E.** 2009. Wuchiapingian (Lopingian) brachiopods from the Episkopi Formation, Hydra (Greece). *Palaeontology*, v. 52, p. 713-743.
- 12 2008 Alroy, J., Aberhan, M., Bottjer, D.J., Foote, M., Fürsich, F.T., Harries, P.J., Hendy, A.J.W., Holland, S.M., Ivany, L.C., Kiessling, W., Kosnik, M.A., Marshall, C.R., McGowan, A.J., Miller, A.I., Olszewski, T.D., Patzkowsky, M.E., Peters, S.E., Villier, L., Wagner, P. J., Bonuso, N., Borkow, P.S., Brenneis, B., **Clapham, M.E.**, Fall, L.M., Ferguson, C.A., Hanson, V.L., Krug, A.Z., Layou, K.M., Leckey, E.H., Nürnberg, S., Powers, C.M., Sessa, J.A., Simpson, C., Tomasovych, A., Visaggi, C.C. 2008. Sampling-standardized Phanerozoic trends in the diversity of marine organisms. *Science* v. 321, p. 97-100.
- 13 2008 Bottjer, D.J., **Clapham, M.E.**, Fraiser, M.L., and Powers, C.M. 2008. Ecology of the end-Permian mass extinction and its recovery. *GSA Today*, v. 18, no. 9, p. 4-10.
- 14 2008 **Clapham, M.E.** and James, N.P. 2008. Paleoecology of Early-Middle Permian (Sakmarian-Capitanian) marine communities in eastern Australia: response to global climate change in the aftermath of the late Paleozoic ice age, *Palaios*, v. 23, p. 738-750.
- 10 2007 **Clapham, M.E.**, and Bottjer, D.J. 2007. Permian marine paleoecology and its implications for large-scale decoupling of brachiopod and bivalve abundance and diversity during the Lopingian (Late Permian). *Palaeogeography, Palaeoclimatology, Palaeoecology*, v. 249, p. 283-301.
- 11 2007 **Clapham, M.E.**, and Bottjer, D.J. 2007. Prolonged Permian-Triassic ecological transition recorded by molluscan dominance in Late Permian offshore assemblages. *Proceedings of the National Academy of Sciences, USA*, v. 104, p. 12971-12975.
- 8 2006 Bottjer, D.J., and **Clapham, M.E.** 2006. Evolutionary paleoecology of Ediacaran benthic marine organisms, in Xiao, S. and Kaufman, A.J. (eds.), *Neoproterozoic Geobiology*, Kluwer Press, p. 91-114.
- 9 2006 **Clapham, M.E.**, Bottjer, D.J., Powers, C.M., Bonuso, N., Fraiser, M.L., Marengo, P.J., Dornbos, S.Q., and Pruss, S.B. 2006. Assessing the ecological dominance of Phanerozoic marine invertebrates. *Palaios*, v. 21, p. 431-441.
- 7 2005 **Clapham, M.E.**, and Corsetti, F.A. 2006. Deep valley incision in the terminal Neoproterozoic (Ediacaran) Johnnie Formation, eastern California, USA: tectonically or glacially driven? *Precambrian Research*, v. 141, p. 154-164.
- 6 2004 **Clapham, M.E.**, Narbonne, G.M., Gehling, J.G., Greentree, C., and Anderson, M.M. 2004. *Thectardis avalonensis*: a new Ediacaran fossil from the Mistaken Point biota, Newfoundland. *Journal of Paleontology*, v. 78, p. 1031-1036.

- 4 2003 Wood, D.A., Dalrymple, R.W., Narbonne, G.M., Gehling, J.G., and **Clapham, M.E.** 2003. Paleoenvironmental analysis of the late Neoproterozoic Mistaken Point and Trepassey formations, southeastern Newfoundland. *Canadian Journal of Earth Sciences*, v. 40, p. 1375-1391.
- 5 2003 **Clapham, M.E.**, Narbonne, G.M., and Gehling, J.G. 2003. Paleocology of the oldest-known animal communities: Ediacaran assemblages at Mistaken Point, Newfoundland. *Paleobiology*, v. 29, p. 527-544.
- 2 2002 **Clapham, M.E.**, Smith, P.L., and Tipper, H.W. 2002. Lower to Middle Jurassic stratigraphy, ammonoid fauna and sedimentary history of the Laberge Group in the Fish Lake syncline, northern Whitehorse Trough, Yukon, Canada. In: *Yukon Exploration and Geology 2001*, D.S. Emond, L.H. Weston and L.L. Lewis (eds.), Exploration and Geological Services Division, Yukon Region, Indian and Northern Affairs Canada, p. 73-85.
- 3 2002 **Clapham, M.E.**, and Narbonne, G.M. 2002. Ediacaran epifaunal tiering. *Geology*, v. 30, p. 627-630.
- 1 2001 Narbonne, G.M., Dalrymple, R.W., Gehling, J.G., Wood, D.A., **Clapham, M.E.**, and Sala, R.A. 2001. Field trip localities description, in Narbonne, G.M., Dalrymple, R.W., and Gehling, J.G. (eds.), *Neoproterozoic Fossils and Environments of the Avalon Peninsula, Newfoundland*, Geological Association of Canada Field trip B5 Guidebook, 100 pp.

PROFESSIONAL ACTIVITIES

Public Lecture or Forum Participation

- May 2021 **Clapham, M.E.** Climate change and extinctions in deep time: lessons for the future. *Celebration of Canadian Geoscience 2021*. INVITED
- Jun 2019 Public talk at Chabot Space and Science Center "Dinosaur First Friday"

Papers Presented at Professional Meetings

- Dec 2021 **Poster presentation:** Chaudhary, A.² and **Clapham, M.E.** 2021. Investigating amino acid diagenesis in marine invertebrate fossils using compound-specific stable nitrogen isotope analysis. *American Geophysical Union Fall Meeting*. (² Undergraduate author)
- Oct 2021 **Oral presentation:** **Clapham, M.E.** 2021. Morphological disparity and ontogenetic variability in ammonoids. *Geological Society of America Abstracts with Programs*, v. 53, no. 6, doi: 10.1130/abs/2021AM-370730.
- Dec 2019 Xia, I.³, Cai, J.³, and **Clapham, M.E.** 2019. Using big data analytics to analyze Phanerozoic trends in the intensity of biogenic sediment reworking. *American Geophysical Union Fall Meeting*. (³ High-school student author)
- Sep 2019 **Oral presentation:** **Clapham, M.E.** and Capone, D.². 2019. Uncoiling the role of climatic and biotic drivers in the Cenozoic decline of nautilids. *Geological Society of America Abstracts with Programs*, v. 51, no. 5, doi: 10.1130/abs/2019AM-340768. (² Undergraduate author)
- Jun 2019 **Oral presentation:** **Clapham, M.E.**, Xia, I.³, Cai, J.³, Manojlovic, M.¹, and Peters, S. 2019. Phanerozoic trends in bioturbation intensity and consequences for benthic organisms. *11th North American Paleontological Conference Program with Abstracts, PaleoBios*, v. 36, supplement 1, p. 103-104. (¹ Graduate student author, ³ High-school student author)
- Jun 2019 **Oral presentation:** Killam, D.¹, Al-Najjar, T., and **Clapham, M.E.** 2019. Potential nitrate aerosol fertilization in Red Sea giant clams recorded in $\delta^{15}\text{N}$ of shell organic material. *11th North American Paleontological Conference Program with Abstracts, PaleoBios*, v. 36, supplement 1, p. 199. (¹ Graduate student author)
- Jun 2019 **Oral presentation:** Killam, D.¹, Al-Najjar, T., and **Clapham, M.E.** 2019. Giant clam growth in the Gulf of Aqaba is accelerated compared to fossil populations: The role of nitrate aerosol fertilization. *5th International Sclerochronology Conference*. (¹ Graduate student author)
- Feb 2019 **Oral presentation:** Killam, D.¹, Al-Najjar, T., and **Clapham, M.** 2019. Studying giant clams in a geopolitically and geologically complex setting: lessons learned during a summer collecting fossil and modern specimens in the Gulf of Aqaba. *ASLO 2019 Aquatic Sciences Meeting*. (¹ Graduate student author)
- Jan 2019 **Oral presentation:** **Clapham, M.E.** 2019. Testing the effects of multi-stressor global change in deep time. *Royal Society Discussion Meeting: The Past is a Foreign Country: How Much can the Fossil Record Actually Inform Conservation?* INVITED
- Nov 2018 **Oral presentation:** **Clapham, M.E.**, Greene, S.E., Farnsworth, A., Lunt, D.J., Butler, R.J., Close, R.A., and Dunne, E. 2018. The influence of seasonal temperature variability on survival during background and mass extinctions. *Geological Society of America Abstracts with Programs*, v. 50, no. 6, doi: 10.1130/abs/2018AM-321357.
- Oct 2017 **Oral presentation:** Okamoto, K.² and **Clapham, M.E.** 2017. Nautilid morphology and evidence for ecological release following the end-Cretaceous extinction of ammonoids. *Geological Society of America Abstracts with Programs*, v. 49, no. 6, doi: 10.1130/abs/2017AM-306939. (² Undergraduate author)

- Oct 2017 **Oral presentation:** Killam, D.E.¹ and **Clapham, M.E.** 2017. Pollution, growth rates, and conservation of Red Sea giant clams using isotope sclerochronology. *Geological Society of America Abstracts with Programs*, v. 49, no. 6. doi: 10.1130/abs/2017AM-302816. (¹ Graduate student author)
- Oct 2017 **Oral presentation:** **Clapham, M.E.** and Manojlovic, M.¹ 2017. Bioturbators and the mid-Mesozoic decline of brachiopods. *Geological Society of America Abstracts with Programs*, v. 49, no. 6. doi: 10.1130/abs/2017AM-297970. (¹ Graduate student author)
- Sep 2016 **Poster presentation:** Killam, D.¹, **Clapham, M.E.**, Posenato, R., and Franceschi, M. 2016. Sclerochronology of the Early Jurassic lithiotid bivalves: searching for symbiosis. *Geological Society of America Abstracts with Programs*, v. 48, no. 7. doi: 10.1130/abs/2016AM-282688. (¹ Graduate student author)
- Sep 2016 **Oral presentation:** Manojlovic, M.¹ and **Clapham, M.E.** 2016. Substrate preference and mid-Mesozoic brachiopod decline. *Geological Society of America Abstracts with Programs*, v. 48, no. 7. doi: 10.1130/abs/2016AM-287971. (¹ Graduate student author)
- Sep 2016 **Oral presentation:** **Clapham, M.E.** 2016. Ecological, constructional, and biotic controls on long-term trends in ammonoid shell disparity. *Geological Society of America Abstracts with Programs*, v. 48, no. 7. doi: 10.1130/abs/2016AM-283616.
- Jun 2016 **Poster presentation:** Killam, D.¹, **Clapham, M.E.**, Franceschi, M. and Posenato, R. 2016. Geochemical evidence for the presence of photosymbiosis in Early Jurassic Lithiotid bivalve. *4th International Sclerochronology Conference*. (¹ Graduate student author)
- Nov 2015 **Oral presentation:** **Clapham, M.E.**, Beard, A.J., Ivany, L.C., and Runnegar, B.N. 2015. Paleophysiology, thermal tolerance, and extinction of the Permian glacial bivalve *Eurydesma*. *Geological Society of America Abstracts with Programs*, v. 47, no. 7, p. 491.
- Nov 2015 **Poster presentation:** Killam, D.¹ and **Clapham, M.E.** 2015. Environmental controls on bivalve skeletal growth. *Geological Society of America Abstracts with Programs*, v. 47, no. 7, p. 643. (¹ Graduate student author)
- Nov 2015 **Oral presentation:** Manojlovic, M.¹ and **Clapham, M.E.** 2015. The role of substrate preference in mid-Mesozoic brachiopod decline. *Geological Society of America Abstracts with Programs*, v. 47, no. 7, p. 428. (¹ Graduate student author)
- Nov 2015 **Poster presentation:** Okamoto, K.² and **Clapham, M.E.** 2015. Long-term trends in nautilid morphospace and the role of mass extinctions. *Geological Society of America Abstracts with Programs*, v. 47, no. 7, p. 139. (² Undergraduate author)
- Dec 2014 **Oral presentation:** **Clapham, M.E.** 2014. Disparity trends in the shell shape of non-heteromorph ammonoids (Cephalopoda). *58th Annual Meeting of the Palaeontological Association*.
- Oct 2014 **Poster presentation:** Killam, D.¹, **Clapham, M.E.**, and Sullivan, S.³ 2014. Relating bivalve growth shutdowns to latitude and temperature. *Geological Society of America Abstracts with Programs*, v. 46, no. 6, p. 539. (¹ Graduate student author, ³ High-school student author)
- Oct 2014 **Poster presentation:** Manojlovic, M.¹ and **Clapham, M.E.** 2014. Examining the role of substrate preference in brachiopod decline following Jurassic recovery using the Paleobiology Database. *Geological Society of America Abstracts with Programs*, v. 46, no. 6, p. 134. (¹ Graduate student author)
- Oct 2014 **Oral presentation:** **Clapham, M.E.** 2014. Early Mesozoic extinction selectivity and the rise of the Modern Fauna. *Geological Society of America Abstracts with Programs*, v. 46, no. 6, p. 279. INVITED
- Oct 2014 **Poster presentation:** Samimi, T.² and **Clapham, M.E.** 2014. Sizes of insect biota preserved in amber fossils. *2014 SACNAS National Conference*. (² Undergraduate author)
- Jul 2014 **Poster presentation:** **Clapham, M.E.** 2014. The marine biotic response to global change in the fossil record. *Gordon Research Conference: Ocean Global Change Biology*.
- Feb 2014 **Oral presentation:** **Clapham, M.E.** 2014. Organism, species, and community-level responses to an icehouse-greenhouse transition after the late Paleozoic ice age. *10th North American Paleontological Congress*. INVITED
- Oct 2013 **Oral presentation:** **Clapham, M.E.** 2013. Permian-Jurassic trends in body size, shape, and geographic range in brachiopods and mollusks. *Geological Society of America Abstracts with Programs*, v. 45, no. 7, p. 93.
- Oct 2013 **Oral presentation:** Marenco, P.J., Fraiser, M.L., **Clapham, M.E.**, and Gatz-Miller, H. 2013. Extreme microgastropod size-limitation in Early Triassic shallow marine settings, Hidden Pasture, Montana: implications for environmental conditions following the end-Permian mass extinction. *Geological Society of America Abstracts with Programs*, v. 45, no. 7, p. 88.
- Oct 2013 **Poster presentation:** Vázquez, P.¹ and **Clapham, M.E.** 2013. Comparative physiological selectivity of Pennsylvanian to Jurassic extinction in bony fish, sharks and invertebrates. *Geological Society of America Abstracts with Programs*, v. 45, no. 7, p. 93. (¹ Graduate student author)

- Oct 2013 **Poster presentation:** Nigam, A.³ and **Clapham, M.E.** 2013. Trends in ammonite suture complexity during the Toarcian extinction. *Geological Society of America Abstracts with Programs*, v. 45, no. 7, p. 108. (³ High-school student author)
- Oct 2013 **Poster presentation:** Sullivan, J.³ and **Clapham, M.E.** Body size trends in ammonites across the Pliensbachian-Toarcian extinction. *Geological Society of America Abstracts with Programs*, v. 45, no. 7, p. 108 (³ High-school student author)
- Jun 2013 **Oral presentation:** **Clapham, M.E.** 2013. Organismal physiology and the effects of anoxia during the end-Permian mass extinction. *World Summit on P-Tr Extinction and Extreme Climate Change, Wuhan, China*. INVITED
- Jun 2013 **Oral presentation:** **Clapham, M.E.** 2013. Latitudinal variations in the lilliput effect during the end-Permian mass extinction. *Roof of the World - the First Joint Scientific Meeting of GSC and GSA, Chengdu, China*. INVITED
- Dec 2012 **Poster presentation:** Schaal, E.K., Morgan, D.J., **Clapham, M.E.**, Rego, B.L., Wang, S.C., and Payne, J.L. 2012. Conodont body size and diversity trends after the end-Permian extinction: implications for the recovery of pelagic vs. benthic marine ecosystems. *American Geophysical Union 2012 Fall Meeting*.
- Dec 2012 **Oral presentation:** **Clapham, M.E.** The biological consequences of flood basalt volcanism. *American Geophysical Union 2012 Fall Meeting*. INVITED
- Nov 2012 **Oral presentation:** Karr, J.A.¹ and **Clapham, M.E.** 2012. Revisiting insect diversity in the fossil record. *Geological Society of America Abstracts with Programs*, v. 44, no. 7, p. 35. (¹ Graduate student author)
- Nov 2012 **Oral presentation:** **Clapham, M.E.** 2012. Recent developments and outstanding questions about the end-Permian mass extinction. *Geological Society of America Abstracts with Programs*, v. 44, no. 7, p. 165. INVITED
- Nov 2012 **Oral presentation:** Darroch, S.A.F., Laflamme, M., and **Clapham, M.E.** Population structure in the Ediacara biota from Mistaken Point, Newfoundland. *Geological Society of America Abstracts with Programs*, v. 44, no. 7, p. 221.
- Nov 2012 **Oral presentation:** Schaal, E.K., Morgan, D.J., **Clapham, M.E.**, Rego, B.L., Wang, S.C., and Payne, J.L. 2012. Conodont body size and diversity trends after the end-Permian extinction: implications for the recovery of pelagic vs. benthic marine ecosystems. *Geological Society of America Abstracts with Programs*, v. 44, no. 7, p. 166.
- Nov 2012 **Oral presentation:** Badyrka, K.A.¹ and **Clapham, M.E.** 2012. Restructuring of marine communities during late Paleozoic climate change in Bolivia. *Geological Society of America Abstracts with Programs*, v. 44, no. 7, p. 626. (¹ Graduate student author)
- Nov 2012 **Poster presentation:** Vázquez, P.¹ and **Clapham, M.E.** 2012. Physiological selectivity of early Mesozoic ocean acidification events: comparison of fish and invertebrate extinctions. *Geological Society of America Abstracts with Programs*, v. 44, no. 7, p. 402. (¹ Graduate student author)
- Nov 2012 **Poster presentation:** Akhtar, A.A., Marengo, P.J., Fraiser, M.L., and **Clapham, M.E.** 2012. A diagenetic investigation of Lower Triassic carbonates: implications for geochemical studies of the Early Triassic biotic recovery in the western US. *Geological Society of America Abstracts with Programs*, v. 44, no. 7, p.401
- Dec 2011 **Poster presentation:** Leopold, R.³ and **Clapham, M.E.** 2011. Morphological disparity during the ammonoid recovery after the Permian mass extinction. *American Geophysical Union 2011 Fall Meeting*. (³ High-school student author)
- Oct 2011 **Oral presentation:** **Clapham, M.E.** and Payne, J.L. 2011. The end-Permian mass extinction - a template for CO₂-driven biotic crises. *Geological Society of America Abstracts with Programs*, v. 43, no. 5, p. 155. INVITED
- Oct 2011 **Oral presentation:** **Clapham, M.E.**, Fraiser, M.L., and Marengo, P.J. 2011. Temporal and environmental distribution of mixed fauna survivors after the end-Permian mass extinction. *Geological Society of America Abstracts with Programs*, v. 43, no. 5, p. 209.
- Oct 2011 **Poster presentation:** Badyrka, K.A.¹ and **Clapham, M.E.** 2011. Response of marine communities to late Paleozoic ice age climate change in Bolivia. *Geological Society of America Abstracts with Programs*, v. 43, no. 5, p. 82. (¹ Graduate student author)
- Oct 2011 **Poster presentation:** Karr, J.¹ and **Clapham, M.E.** 2011. Biotic and environmental controls on long-term trends in insect taphonomy. *Geological Society of America Abstracts with Programs*, v. 43, no. 5, p. 425. (¹ Graduate student author)
- Oct 2011 **Oral presentation:** Schaefer, S.N., Fraiser, M.L., Marengo, P.J., and **Clapham, M.E.** 2011. Habitable-zone distribution of Early Triassic rhynchonelliform brachiopods in the Dinwoody basin of the western United States. *Geological Society of America Abstracts with Programs*, v. 43, no. 5, p. 209.
- Oct 2011 **Oral presentation:** Griffin, J.M., Marengo, P.J., Fraiser, M.L., and **Clapham, M.E.** 2011. Geochemical, petrographic and spatial analyses of microbialites from the Virgin Limestone,

- Nevada: insights into Early Triassic biotic recovery from the end-Permian mass extinction. *Geological Society of America Abstracts with Programs*, v. 43, no. 5, p. 209.
- Oct 2011 **Oral presentation:** Marenco, P.J., Lepes, E.M., **Clapham, M.E.**, Fraiser, M.L. and Orchard, M.J. 2011. Conodont biostratigraphy of the Virgin Limestone at Lost Cabin Spring: implications for the study of Early Triassic biotic events. *Geological Society of America Abstracts with Programs*, v. 43, no. 5, p. 209.
- Oct 2011 **Oral presentation:** Ghisalberti, M., Jacobs, D.K., Gold, D.A., Laflamme, M., **Clapham, M.E.**, Narbonne, G.M., Johnston, D.T., and Summons, R. 2011. Canopy flow models identify a scaling advantage for large size in the Mistaken Point rangeomorphs, the world's oldest community of multicellular eukaryotes. *Geological Society of America Abstracts with Programs*, v. 43, no. 5, p. 320.
- Apr 2011 **Oral presentation:** **Clapham, M.E.** 2011. Extinction: causes and consequences. *Kavli Frontiers of Science, Fourth Indo-American Symposium*. INVITED
- Nov 2010 **Oral presentation:** **Clapham, M.E.** 2010. Biotic invasion and regional faunal change in marine communities during late Paleozoic postglacial warming in eastern Gondwana. *Geological Society of America Abstracts with Programs*, v. 42, no. 5, p. 193.
- Nov 2010 **Oral presentation:** Schaal, E.K., **Clapham, M.E.**, Rego, B.L., Wang, S.C., and Payne, J.L. 2010. Comparative size evolution of marine clades from the Late Permian through Middle Triassic. *Geological Society of America Abstracts with Programs*, v. 42, no. 5, p. 481.
- Nov 2010 **Oral presentation:** Marenco, P.J., Griffin, J.M., Lepes, E.M., **Clapham, M.E.**, and Fraiser, M.L. 2010. Refining the timing of Early Triassic biotic and environmental events: results from the Moenkopi Formation of Nevada. *Geological Society of America Abstracts with Programs*, v. 42, no. 5, p. 72.
- Nov 2010 **Oral presentation:** Griffin, J.M., Marenco, P.J., Fraiser, M.L., **Clapham, M.E.** 2010. Stromatolite-sponge-Tubiphytes reefs in the Virgin Limestone Member of the Moenkopi Formation, Nevada: implications for biotic recovery following the end-Permian mass extinction. *Geological Society of America Abstracts with Programs*, v. 42, no. 5, p. 72.
- Nov 2010 **Oral presentation:** Dornbos, S.Q., **Clapham, M.E.**, Fraiser, M.L., Laflamme, M. 2010. Marine biodiversity and ecosystem functioning during two critical intervals of animal evolution: the Ediacaran-Cambrian radiation and the end-Permian mass extinction and its aftermath. *Geological Society of America Abstracts with Programs*, v. 42, no. 5, p. 480.
- Jun 2010 **Oral presentation:** **Clapham, M.E.** 2010. Marine faunal constraints on temperature and ocean circulation changes in the Permian. *Third International Paleontological Congress Abstracts*, p. 122.
- May 2010 **Oral presentation:** **Clapham, M.E.** 2010. Regional-scale faunal changes during Early Permian climate fluctuations. *Geological Society of America Abstracts with Programs*, v. 42, no. 4, p. 44.
- May 2010 **Poster presentation:** Unangst, N.A.², **Clapham, M.E.**, and Lopez, S. 2010. Taxonomic re-examination of Permo-Carboniferous brachiopods from Bolivia: implications for faunal change during the late Paleozoic ice age. *Geological Society of America Abstracts with Programs*, v. 42, no. 4, p. 60. (² Undergraduate author)
- Oct 2009 **Oral presentation:** **Clapham, M.E.** 2009. Selectivity of the end-Permian mass extinction. *Geological Society of America Abstracts with Programs*, v. 41, no. 7, p. 359.
- Oct 2009 **Oral presentation:** Hendy, A.J.W., Aberhan, M., Alroy, J., **Clapham, M.E.**, Kiessling, W., Laflamme, M., and Lin, J.P. 2009. A 600 million year record of ecological diversification. *Geological Society of America Abstracts with Programs*, v. 41, no. 7, p. 508.
- Oct 2009 **Oral presentation:** Finnegan, S., Wang, S.C., Boyer, A.G., **Clapham, M.E.**, Finkel, Z.V., Kosnik, M.A., Kowalewski, M., Krause, R.A., Lyons, S.K., McClain, C.R. McShea, D., Novack-Gottshall, P.M., Lockwood, R., Payne, J., Smith, F., Spaeth, P.A., and Stempien, J.A. 2009. No general relationship between body size and extinction in the fossil record of marine invertebrates and phytoplankton. *Geological Society of America Abstracts with Programs*, v. 41, no. 7, p. 506.
- Jun 2009 **Poster presentation:** **Clapham, M.E.** 2009. Outline morphometrics and ontogenetic shape change in *Promytilus*: implications for the taxonomy of late Paleozoic mytilids. *9th North American Paleontological Convention Abstracts, Cincinnati Museum Center Scientific Contributions*, no. 3, p. 75.
- Oct 2008 **Oral presentation:** **Clapham, M.E.**, Fielding, C.R., Frank, T., Montanez, I., and James, N.P. 2008. Late Paleozoic Ice Age DETELO: Integrating paleontological, sedimentological, and geochemical data to investigate faunal and climate change in deep time. *Geological Society of America Abstracts with Programs*, v. 40, no. 6, p. 97.
- Oct 2007 **Oral presentation:** **Clapham, M.E.** and James, N.P. 2007. Climate-driven biotic change in the marine Permian of eastern Australia during the aftermath of the late Paleozoic ice age. *Geological Society of America Abstracts with Programs*, v. 39, no. 6, p. 354.
- Jun 2007 **Oral presentation:** **Clapham, M.E.**, Bottjer, D.J., and Shen, S.Z. 2007. Re-assessing the end-Guadalupian extinction using sampling-standardized Permian marine invertebrate diversity

patterns. *17th International Congress on the Carboniferous and Permian, Journal of Stratigraphy*, v. 31, Supplement 1, p. 172.

- Oct 2006 **Oral presentation: Clapham, M.E.**, Bottjer, D.J., and Shen, S.Z. 2006. Decoupled diversity and ecology during the end-Guadalupian extinction (Late Permian). *Geological Society of America Abstracts with Programs*, v. 38, no. 7, p. 117. INVITED
- Jun 2006 **Oral presentation: Clapham, M.E.** and Bottjer, D.J. 2006. The rise of the Modern Evolutionary Fauna: decoupled taxonomic and ecological response during the end-Guadalupian extinction. *Second International Paleontological Congress Abstracts*, p. 374.
- Oct 2005 **Oral presentation: Clapham, M.E.** and Bottjer, D.J. 2005. Small taxonomic and large ecological effects of the end-Guadalupian extinction (Late Permian). *Geological Society of America Abstracts with Programs*, v. 37, no. 7, p. 385.
- Jun 2005 **Oral presentation: Clapham, M.E.** and Bottjer, D.J. 2005. Early initiation of Modern Fauna ecological dominance before the Permo-Triassic mass extinction. *8th North American Paleontological Convention. PaleoBios*, v. 25, no. 2, p. 30.
- Nov 2004 **Oral presentation: Clapham, M.E.** and Corsetti, F.A. 2004. Tectonically-driven deep valley incision in the Terminal Neoproterozoic Johnnie Formation, eastern California. *Geological Society of America Abstracts with Programs*, v. 36, no. 5, p. 531.
- Nov 2003 **Oral presentation: Clapham, M.E.**, Bottjer, D.J., Pruss, S.B., Marengo, P.J., Jamet, C.M., Fraiser, M.L., Dornbos, S.Q., and Bonuso, N. 2003. Phanerozoic trends in ecological dominance. *Geological Society of America Abstracts with Programs*, v. 35, no. 6, p. 589.
- Nov 2003 **Oral presentation: Jamet, C.M.**, Bottjer, D.J. Bonuso, N., **Clapham, M.E.**, Dornbos, S.Q., Fraiser, M.L., Marengo, P.J., and Pruss, S.B. 2003. Assessing ecological dominance from the fossil record. *Geological Society of America Abstracts with Programs*, v. 35, no. 6, p. 589.
- Nov 2003 **Oral presentation: Narbonne, G.M.** and **Clapham, M.E.** 2003. Life after snowball: the Mistaken Point biota and the origin of animal ecosystems. *Geological Society of America Abstracts with Programs*, v. 35, no. 6, p. 516. INVITED
- Oct 2002 **Oral presentation: Clapham, M.E.**, and Narbonne, G.M. 2002. Ecological succession in the Neoproterozoic. *Geological Society of America Abstracts with Programs*, v. 34, no. 6, p. 169.
- Jul 2002 **Oral presentation: Clapham, M.E.**, and *Narbonne, G.M. 2002. Ediacaran epifaunal tiering. *First International Paleontological Congress, Geological Society of Australia, Abstracts*, v. 68, p. 34-35. (*presenter)
- May 2002 **Oral presentation: Clapham, M.E.**, and Narbonne, G.M. 2002. Ediacaran epifaunal tiering. *Geological Association of Canada Annual Meeting, Abstracts*, v. 27, p. 21.
- Jan 2002 **Oral presentation: Clapham, M.E.**, Narbonne, G.M., and Gehling, J.G. 2002. Community ecology of Ediacaran fossil assemblages at Mistaken Point, Newfoundland. *Society for Integrative and Comparative Biology Annual Meeting, Program and Abstracts*, p. 151-152. INVITED
- Sep 2001 **Oral presentation: Clapham, M.E.**, Narbonne, G.M., and Gehling, J.G. 2001. Community ecology of Ediacaran fossil assemblages at Mistaken Point, Newfoundland. *Canadian Paleontology Conference, Program and Abstracts*, v. 11, p. 10-13.
- Sep 2001 **Oral presentation: Wood, D.A.**, Dalrymple, R.W., Narbonne, G.M., **Clapham, M.E.**, and Gehling, J.G. 2001. Paleoeological implications of oriented Ediacaran fossils in the late Neoproterozoic Mistaken Point and Trepassey Formations, southeastern Newfoundland. *Canadian Paleontology Conference, Program and Abstracts*, v. 11, p. 64.
- May 2001 **Oral presentation: Clapham, M.E.**, Narbonne, G.M., and Gehling, J.G. 2001. Population structure, diversity, and species abundance models of Ediacaran communities at Mistaken Point, Newfoundland. *Geological Association of Canada Annual Meeting, Abstracts*, v. 26, p. 26.
- May 2001 **Oral presentation: Wood, D.A.**, Dalrymple, R.W., Narbonne, G.M., **Clapham, M.E.**, and Gehling, J.G. 2001. Sedimentology and taphonomy of Ediacaran fossils at Mistaken Point, Newfoundland. *Geological Association of Canada Annual Meeting, Abstracts*, v. 26, p. 165.

Conferences and Meetings

- Fall 2021 - Present Ecological and Evolutionary Effects of Extinction and Ecosystem Engineers (E6) RCN. INVITED
- Jun 2021 Breakout room moderator, National Academy meeting "Identifying New Community-Driven Science Themes for NSF's Support of Paleoclimate Research". INVITED
- Nov 2017 EarthRates community priorities and planning workshop. INVITED
- Jun 2017 Participant at iMUDS workshop on the effects of bioturbation on global biogeochemical cycles and its effects on how climate change is recorded in the rock record. INVITED
- Jan 2014 Meeting participant, Future of Geoscience Undergraduate Education.
- 2009 - 2012 Invited participant in NERC-funded workshop (Centre for Population Biology) on biodiversity and ecosystem functioning. Met August 2009 and January 2010 to collect data and plan project. Also met with a subset of the main group in May 2012 to work on writing the results. INVITED
- Feb 2011 Invited participant in DETELON (Deep Time Earth-Life Observatory Network) workshop to produce a science plan for presentation to NSF. Helped write part of the science plan document.

INVITED

Memberships or Activities in Professional Associations

- Spring 2011 - Present Executive Committee member, Paleobiology Database
Fall 2015 - Fall 2021 Paleontological Society Program Coordinator
Winter 2016 - Summer 2020 Executive Committee Secretary, Paleobiology Database
Winter 2011 - Fall 2012 Paleontological Society member on GSA Joint Technical Program committee
Winter - Fall 2010 Vice-President, Pacific Section SEPM (Society for Sedimentary Geology)

Editorial Services

- Jan 2020 - Dec 2022 Editorial board member for journal *Geology*
Fall 2016 - Fall 2018 Guest editor for special volume of *Palaeogeography, Palaeoclimatology, Palaeoecology*: "Studies in Honor of Prof. David J. Bottjer"

Local, State or Federal Government Service

- Jan 2021 NITRD BD IWG Virtual Workshop on Pioneering the Future of Federally Supported Data Repositories INVITED
Oct 2019 Panel service for NSF Sedimentary Geology and Paleobiology INVITED

Talks and Presentations at Colleges and Universities

- Sep 2021 **Department seminar:** Department of Earth Sciences, University of Delaware INVITED
Nov 2020 **Guest lecture:** University of Toronto (ERS411: Paleobiology) INVITED
May 2018 **Department seminar:** Department of Geological Sciences, Stanford University INVITED
Apr 2018 **Department seminar:** Department of Earth Sciences, University of Southern California INVITED
Mar 2018 **Department seminar:** Geology Department, San Jose State University INVITED
May 2016 **Clapham, M.E.** Benefits of a Flipped Classroom. Digital Pedagogy Lightning Round, UCSC Faculty Instructional Technology Center.
2013 **Public talk: Clapham, M.E.** 2013. The End-Permian Hothouse Event. The 9th Poe Symposium, California State University-Channel Islands. INVITED
2013 **Department seminar:** Fossil Coffee talk, UC Museum of Paleontology, Berkeley INVITED
2009 **Department seminar:** Department of Geology, University of California, Davis INVITED
2008 **Department seminar:** Department of Geological and Environmental Sciences, Stanford University INVITED

Media Appearances

- May 2021 Featured scientist for The Shape of Life website aimed at K-12 educators (<https://www.shapeoflife.org/news/featured-scientist/2021/05/21/matthew-clapham>)
Mar 2021 Interviewed for article about giant insects in Double Helix magazine
May 2020 Interview for news article on giant insects (<https://www.sciencenewsforstudents.org/article/minecraft-big-bees-giant-insects-paleontology>)
Jun 2019 Interview on KZSC radio "The Cutting Edge"
May 2019 Guest on KSCO radio "Flight 1080"
Mar 2019 Guest on KSCO radio "Flight 1080"
Sep 2018 Research featured in article about giant fossil insects (<https://earthsky.org/earth/why-were-prehistoric-insects-so-huge>)
Oct 2017 Research featured in the book "*Squid Empire: The Rise and Fall of the Cephalopods*". I did an interview with the author Danna Staaf in spring 2016 and fact-checked a small section of the book in summer 2016.
Jun 2017 Research featured in the book "*The Ends of the World: Volcanic Apocalypses, Lethal Oceans, and Our Quest to Understand Earth's Past Mass Extinctions*". The author, Peter Brannen, interviewed me in Fall 2014.
Oct 2016 Quoted in National Geographic story on giant insects (<https://news.nationalgeographic.com/2016/10/animal-science-insects-biggest-moth-weta-butterfly/>)
Oct 2016 Featured in an article about the end-Permian mass extinction in the American Geosciences Institute magazine *Earth* (<https://www.earthmagazine.org/article/when-earth-hit-reset-button-life-new-research-permian-triassic-mass-extinction>)
Nov 2015 Featured in *New Scientist* magazine article "Small Wonders" on the evolution of insects
Sep 2015 Interviewed for article about a fossil whale skeleton discovered in Scotts Valley (<https://www.santacruzsentinel.com/2015/09/17/whale-fossil-uncovered-in-scotts-valley/>)

- Apr 2015 Interviewed to comment on a mass extinction study (<https://www.sciencemag.org/news/2015/04/sixth-extinction-rivaling-dinosaurs-should-join-big-five-scientists-say>)
- Apr 2015 Interviewed to comment on a mass extinction study (<https://www.bbc.com/news/science-environment-32397220>)

UNIVERSITY SERVICE

Academic Senate Service

- Fall 2020 - Summer 2022 Committee on Admissions and Financial Aid
- Fall 2018 - Spring 2020 Committee on Planning and Budget (as vice-chair)
- Fall 2017 - Spring 2018 Committee on Planning and Budget
- Fall 2016 - Spring 2017 Mentor for Committee on Career Advising
- Fall 2015 - Spring 2016 Committee on Research

Service to the Division

- Fall 2016 - Present Program faculty, Science Education major
- Summer 2018 Advised the Astronomy department on their proposal for a new major
- Fall 2017 - Spring 2018 Ocean Science search committee (Geological Oceanography)
- Spring 2016 Dean's and Chancellor's Award committee (award for best senior thesis)
- Winter 2016 Undergrad Research in Sciences Awards committee
- Spring 2014 Dean's and Chancellor's Award committee (award for best senior thesis)

Service to the Department

- Summer 2020 - Present Department chair
- Fall 2010 - Present Thin section lab manager
- Spring 2020 Search committee for department manager
- Fall 2013 - Spring 2020 Curriculum committee
- Summer 2013 - Spring 2020 Faculty undergraduate co-advisor
- Fall 2017 Fleet vehicle committee
- Fall 2016 Department manager second interviews
- Fall - Spring 2016 Biogeochemistry faculty search committee
- Fall 2014 Department seminar coordinator
- Spring 2014 Waters award committee (department award for best qualifying exam proposal)
- Fall 2012 - Spring 2014 Graduate admissions committee
- Fall 2013 Department seminar coordinator
- Fall 2012 Department seminar coordinator
- Fall 2010 - Spring 2011 Space committee
- Fall 2008 - Spring 2010 Graduate admission committee
- Spring 2008 Department seminar coordinator

Service to the University

- Summer 2018 - Summer 2019 ACE Internationalization Lab committee member and member of the steering committee
- Fall 2017 - Spring 2018 Advisory Committee on Campus Transportation and Parking
- Spring 2015 Hellman Fellowship committee (judging research proposals from PBSci and SOE faculty)

K-12 Outreach

- Feb 2021 Interview for Shape of Life (<https://www.shapeoflife.org>), an organization that produces educational materials for teachers

Other Outreach

- Apr 2017 Interviewed for Bay Curious podcast on fossil life of the Bay Area
- Feb 2017 Consulted with documentary makers (Size Matters for BBC4) about the appearance of giant fossil insects
- Fall 2012 - Spring 2013 Scientific consulting for art exhibit "Theater of Lost Species" (<http://www.future-cities-lab.net/theater-of-lost-species/>)

