

Mark E. Patzkowsky

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The Pennsylvania State University
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Research Interests:

Stratigraphic paleobiology; biodiversity; paleoecology; quantitative paleobiology; stratigraphy

Education:

Ph.D. 1992 Geophysical Sciences, The University of Chicago, Chicago, Illinois
M.S. 1986 Geology, Indiana University, Bloomington, Indiana
B.A. 1981 Geology, Kansas State University, Manhattan, Kansas

Professional Experience:

2013-present Professor, Geosciences, Penn State
2018-2023 Associate Head of the Graduate Programs and Research in Geosciences
2000-2013 Associate Professor, Geosciences, Penn State
2011-2012 Associate Head for the Undergraduate Program in Geosciences
2002 Visiting Scientist, Woods Hole Oceanographic Institution
1995-2000 Assistant Professor (tenure-track), Geosciences, Penn State
1992-1995 Assistant Professor (fixed-term), Geosciences, Penn State
1986-1991 Teaching Assistant, Geophysical Sciences, The University of Chicago
1988 Research Assistant, Geophysical Sciences, The University of Chicago
1985-1986 Associate Instructor, Department of Geology, Indiana University

Professional Leadership:

2018-2023 Editor-in-Chief, *Paleobiology*
2016-2023 Editor, *Paleobiology*
2015-2017 Associate Editor, *Terra Nova*
2014-2017 Associate Editor, *Palaios*
2013-2017 Editorial Board Member, *Geological Magazine*
2015-2017 Paleontological Society Fellows Selection Committee
2008-2018 Paleontological Society Finance Committee
2002-2008 Treasurer, *Paleontological Society*
2000-2011 Advisory Board Member, *Paleobiology Database*

Honors and Awards:

2022-2023 Fulbright US Scholar Award to Germany
2021 Faculty Mentoring Award, College of Earth and Mineral Sciences, Penn State
2019 Elected Fellow of the Geological Society of America
2015 Best Paper Award for *Palaeontology*

2014	Elected Fellow of the Paleontological Society
2011	Distinguished Service Award, The Paleontological Society
2004	Honorable Mention Outstanding Paper for <i>PALAIOS</i> 2002
2003	Outstanding Paper for <i>PALAIOS</i> 2001
2001	Honorable Mention Outstanding Paper for <i>PALAIOS</i> 1999
1999	SEPM Excellence of Poster Presentation Award
1991	Best Student Paper Award, SEPM Great Lakes Section, North-Central GSA
1984	Graduate School Fellowship, Indiana University
1984	Lucretia Crocker Scholarship, Marine Biological Laboratory, Woods Hole
1981	Fulbright Commission Travel Scholarship, Giessen, Germany
1981	Kansas State University Exchange Fellowship, Giessen, Germany
1980	Phi Beta Kappa

PUBLICATIONS

Books:

Patzkowsky, M. E., and Holland, S. M., 2012, Stratigraphic Paleobiology: Understanding the Distribution of Fossil Taxa in Time and Space. The University of Chicago Press, Chicago. 259 p.

Articles in Refereed Journals:

Irizarry, K. M., Witts, J. D., Garb, M. P., Rashkova, A., Landman, N. H. and **M. E. Patzkowsky**. 2023. Faunal and stratigraphic analysis of the basal Cretaceous-Paleogene (K-Pg) boundary event deposits, Brazos River, Texas, USA. *Palaeogeography, Palaeoclimatology, Palaeoecology* <https://doi.org/10.1016/palaeo.2022.111334>.

Congreve, C. R., **Patzkowsky, M. E.**, and P. J. Wagner. 2021. An early burst in brachiopod evolution corresponding with significant climate shifts during the Great Ordovician Biodiversification Event. *Proceedings of the Royal Society B*. <https://doi.org/10.1098/rspb.2021.1450>.

Sclafani, J. A., Congreve, C. R., and **M. E. Patzkowsky**. 2021. Does evolutionary relatedness predict ecological similarity? *Paleobiology* 47(2):284-300.

Congreve, C. R., Krug, A. Z., and **M. E. Patzkowsky**. 2019. Evolutionary and biogeographic shifts in response to the Late Ordovician mass extinction. *Palaeontology* 62(2):267-285.

Sclafani, J. A., Congreve, C. R., Krug, A. Z., and **M. E. Patzkowsky**. 2018. Effects of mass extinction and recovery dynamics on long-term evolutionary trends: a morphological study of Strophomenida (Brachiopoda) across the Late Ordovician mass extinction. *Paleobiology* 44:603-619.

Patzkowsky, M. E. 2017. The origin and evolution of regional biotas: a deep-time perspective. *Annual Reviews of Earth and Planetary Sciences* 45:471-495.

Lamsdell, J. C., Congreve, C. R., Hopkins, M. J., Krug, A. Z., and **M. E. Patzkowsky**. 2017. Phylogenetic Paleocology: Tree-thinking and ecology in deep time. *Trends in Ecology and Evolution* 32:452-463.

Patzkowsky, M. E., and S. M. Holland. 2016. Biotic invasion, niche stability, and the assembly of regional ecosystems in deep time: comparison between faunal provinces. *Paleobiology* 42:359-379.

Congreve, C. R., Krug, A. Z., and **M. E. Patzkowsky**. 2015. Phylogenetic revision of the Strophomenida, a diverse and ecologically important Palaeozoic brachiopod order. *Palaeontology* 58:743-758.

Schueth, J. D., Bralower, T. J., Jiang, S., and **M. E. Patzkowsky**. 2015. The role of survivor incumbency in the evolutionary recovery of calcareous nannoplankton from the Cretaceous/Paleogene (K/Pg) mass extinction. *Paleobiology* 41:661-679.

*Holland, S. M., and **M. E. Patzkowsky**. 2015. The stratigraphy of mass extinction. *Palaeontology* 58:743-758.

*Best Paper Award for 2015 from *Palaeontology*.

Krug, A. Z., and **M. E. Patzkowsky**. 2015. Phylogenetic clustering of origination and extinction across the Late Ordovician mass extinction. *Plos One* 10:e0144354.

Graham, H. V., **Patzkowsky, M. E.**, Wing, S. L., Parker, G. G., Fogel, M. L., and K. H. Freeman. 2014. Isotopic characteristics of canopies in simulated leaf assemblages. *Geochimica et Cosmochimica Acta* 144:82-95.

Schueth, J. D., Keller, K., Bralower, T. J., and **M. E. Patzkowsky**. 2014. The Probable Datum Method (PDM): a technique for estimating the age of origination and extinction of nannoplankton. *Paleobiology* 40:541-559.

Schneider, L. J., Bralower, T. J., Kump, L. R., and **Patzkowsky, M. E.**, 2013, Calcareous nannoplankton ecology and community change across the Paleocene-Eocene Thermal Maximum: *Paleobiology*, v. 39, 628-647.

Pancost, R. D., Freeman, K. H., Herrmann, A. D., **Patzkowsky, M. E.**, Ainsaar, L. and Martma, T., 2013, Reconstructing Late Ordovician carbon cycle variations: *Geochimica et Cosmochimica Acta* v. 105, p. 433-454.

Holland, S. M. and **Patzkowsky, M. E.**, 2012, Sequence architecture of the Bighorn Dolomite, Wyoming, USA: Transition to the Late Ordovician icehouse: *Journal of Sedimentary Research* v. 82, p. 599-615.

Sessa, J. A., Bralower, T. J., **Patzkowsky, M. E.**, Handley, J. C., and Ivany, L. C., 2012, Environmental and biological controls on the diversification and ecological reorganization of

Late Cretaceous and early Paleogene marine ecosystems in the Gulf Coastal Plain: *Paleobiology* v. 38, p. 218-239.

Bonelli, J. R., and **Patzkowsky, M.E.**, 2011, Taxonomic and ecologic persistence across the onset of the Late Paleozoic Ice Age: evidence from the Upper Mississippian (Chesterian Series), Illinois Basin, USA: *Palaios*, v. 26, p. 5-17.

Jiang, S., Bralower, T. J., **Patzkowsky, M. E.**, Kump, L. R., and Schueth, J. D., 2010, Geographic controls on nannoplankton extinction across the Cretaceous/Paleogene boundary: *Nature Geosciences*, v. 3, p. 280-285.

Holland, S. M., and **Patzkowsky, M.E.**, 2009, The stratigraphic distribution of fossils in a tropical carbonate succession: Ordovician Bighorn Dolomite, Wyoming, USA: *Palaios*, v. 24, p. 303-317.

Sessa, J. A., **Patzkowsky, M. E.**, and Bralower, T. J., 2009, The impact of lithification on the diversity, size distribution, and recovery dynamics of marine invertebrate assemblages: *Geology*, v. 37, p. 115-118.

Note: Sessa et al. was selected for Editor's Choice in Science, v. 323, Mar. 6, 2009

Pope, M. C., Holland, S. M., and **Patzkowsky, M. E.**, 2009, The Cincinnati Arch: a stationary peripheral bulge during the Late Ordovician: *Special Publication International Association of Sedimentologists*, v. 41, p. 255-276.

Olszewski, T. D., and **Patzkowsky, M. E.**, 2008, Icehouse climate and eustasy recorded on a low-latitude epeiric platform: alternating climate regimes in the Pennsylvanian-Permian succession of the North American Midcontinent. In Holmden, C. and Pratt, B.R., eds., Dynamics of Epeiric Seas: *Geological Association of Canada Special Paper* 48, p. 229-245.

Bonelli, J. R., Jr., and **Patzkowsky, M. E.**, 2008, How are global patterns of faunal turnover expressed at regional scales? Evidence from the Upper Mississippian (Chesterian Series), Illinois Basin, USA: *Palaios*, v. 23, p. 760-772.

Alroy, J., Aberhan, M., Bottjer, D. J., Foote, M., Fursich, 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., Nurnberg, S., Powers, C. M., Sessa, J. A., Simpson, C., Tomasovych, A., and Visaggi, C. C., 2008, Phanerozoic trends in the global diversity of marine invertebrates: *Science*, v. 321, p. 97-100.

Fuqua, L. M., Bralower, T. J., Arthur, M. A., and **Patzkowsky, M. E.**, 2008, Evolution of calcareous nannoplankton and the recovery of marine food webs after the Cretaceous-Paleocene mass extinction: *Palaios*, v. 23, 185-194.

- Patzkowsky, M. E.**, and Holland, S. M., 2007, Diversity partitioning of a Late Ordovician marine biotic invasion: controls on diversity in regional ecosystems: *Paleobiology*, v. 33, p. 295-309.
- Krug, A. Z., and **Patzkowsky, M. E.**, 2007, Geographic variation in turnover and recovery from the Late Ordovician mass extinction: *Paleobiology*, v. 33, 435-454.
- Holland, S. M., and **Patzkowsky, M. E.**, 2007, Gradient ecology of a biotic invasion: biofacies of the type Cincinnati series (Upper Ordovician), Cincinnati, Ohio region, USA: *Palaios*, v. 22, p. 392-407.
- Krug, A. Z., and **Patzkowsky, M. E.**, 2004, Rapid recovery from the Late Ordovician mass extinction: *Proceedings of the National Academy of Sciences*, v. 101, p. 17605-17610.
- Holland, S. M., and **Patzkowsky, M. E.**, 2004, Ecosystem structure and stability: Middle Upper Ordovician of Central Kentucky, USA: *Palaios*, v. 19, p. 316-331.
- Herrmann, A. D., Haupt, B. J., **Patzkowsky, M. E.**, Seidov, D., and Slingerland, R. L., 2004, Response of Late Ordovician paleoceanography to changes in sea level, continental drift, and atmospheric $p\text{CO}_2$: potential causes for long-term cooling and glaciation: *Palaeogeography, Palaeoclimatology, Palaeoecology*, v. 210, p. 385-401.
- Herrmann, A. D., **Patzkowsky, M. E.**, and Pollard, D., 2004, The impact of paleogeography, $p\text{CO}_2$, poleward ocean heat transport and sea level change on global cooling during the Late Ordovician: *Palaeogeography, Palaeoclimatology, Palaeoecology*, v. 206, p. 59-74.
- Patzkowsky, M. E.**, and Holland, S. M., 2003, Lack of community saturation at the beginning of the Paleozoic plateau: the dominance of regional over local processes: *Paleobiology*, v. 29, 545-560.
- Herrmann, A. D., **Patzkowsky, M. E.**, and Pollard, D., 2003, Obliquity forcing with 8-12x pre-industrial levels of atmospheric $p\text{CO}_2$ during the Late Ordovician glaciation: *Geology*, v. 31, p. 485-488.
- Herrmann, A. D., **Patzkowsky, M.E.** and Holland, S. M., 2003, BIOMODULE: A Java program to help model and interpret the stratigraphic record: *Computers in Geosciences*, v. 29, p. 99-105
- Olszewski, T.D., and **Patzkowsky, M.E.**, 2003, From cyclothems to sequences: the record of eustasy and climate on an icehouse epeiric platform (Pennsylvanian-Permian, North American Midcontinent): *Journal of Sedimentary Research*, v. 73, p. 15-30.
- Holland, S. M., and **Patzkowsky, M. E.**, 2002, Stratigraphic variation in the timing of first and last occurrences: *Palaios*, v. 16, p. 134-146. (Awarded *Honorable Mention Outstanding Journal Paper for 2002* by SEPM).

- Olszewski, T. D., and **Patzkowsky, M. E.**, 2001, Evaluating taxonomic turnover: Pennsylvanian-Permian brachiopods and bivalves of the North American Midcontinent: *Paleobiology*, v. 27, p. 646-668.
- Olszewski, T. D., and **Patzkowsky, M. E.**, 2001, Measuring recurrence of marine biotic gradients: a case study from the Pennsylvanian-Permian Midcontinent: *Palaios*, v. 16, p. 444-460. (Awarded *Outstanding Journal Paper for 2001* by SEPM).
- Alroy, J., Marshall, C. R., Bambach, R. K., Bezusko, K., Foote, M., Fürsich, F. T., Hansen, T. A., Holland, S. M., Ivany, L. C., Jablonski, D., Jacobs, D. K., Kosnik, M. A., Lidgard, S., Low, S., Miller, A. I., Novack-Gottshall, P. M., Olszewski, T. D., **Patzkowsky, M. E.**, Raup, D. M., Roy, K., Sepkoski, J. J., Jr., Sommers, M. G., Wagner, P. J., and Webber, A., 2001, Effects of sampling standardization on estimates of Phanerozoic marine diversification: *Proceedings of the National Academy of Sciences*, v. 98, p. 6261-6266.
- Pancost, R. D., Freeman, K. H., and **Patzkowsky, M. E.**, 1999, Organic matter source variation and the expression of a Middle Ordovician carbon-isotope excursion: *Geology*, v. 27, p. 1015-1018.
- Kump, L. R., Arthur, M. A., **Patzkowsky, M. E.**, Gibbs, M. T., Pinkus, D. S., and Sheehan, P. M., 1999, A weathering hypothesis for glaciation at high atmospheric pCO₂ during the Late Ordovician: *Palaeogeography, Palaeoclimatology, Palaeoecology*, v. 152, p. 173-187.
- Holland, S. M., and **Patzkowsky, M. E.**, 1999, Models for simulating the fossil record: *Geology*, v. 27, p. 491-494.
- Patzkowsky, M. E.**, and Holland, S. M., 1999, Biofacies replacement in a sequence stratigraphic framework: Middle and Upper Ordovician of the Nashville Dome, Tennessee, U.S.A.: *Palaios*, v. 14, p. 301-323. (Awarded *Honorable Mention Outstanding Journal Paper for 1999* by SEPM).
- Patzkowsky, M.E.**, 1999, A new agenda for evolutionary paleoecology – or would you in the background please step forward: *Palaios*, v. 14, p. 195-197. Invited editorial.
- Miller, A. I., Holland, S. M., Droser, M. L., and **Patzkowsky, M. E.**, 1998, Dynamics of the Ordovician Radiation: a comment: *Paleobiology*, v. 24, p. 524-528.
- Pancost, R. D., Freeman, K. H., **Patzkowsky, M. E.**, Wavrek, D. A., and Collister, J. W., 1998, Molecular indicators of redox and marine photoautotroph composition in the Late Middle Ordovician of Iowa, U.S.A.: *Organic Geochemistry*, v. 29, p. 1649-1662.
- Holland, S. M., and **Patzkowsky, M. E.**, 1998, Sequence stratigraphy and relative sea-level history of the Middle and Upper Ordovician of the Nashville Dome, Tennessee: *Journal of Sedimentary Research*, v. 68, 684-699.
- Patzkowsky, M. E.**, Slupik, L. M., Arthur, M. A., Pancost, R. D., and Freeman, K. H., 1997, Late Middle Ordovician environmental change and extinction: Harbinger of the end-Ordovician or continuation of Cambrian patterns?: *Geology*, v. 25, 911-914.

- Patzkowsky, M. E.**, and Holland, S. M., 1997, Patterns of turnover in Middle and Upper Ordovician brachiopods of the eastern United States: a test of coordinated stasis: *Paleobiology*, v. 23, 420-443.
- Holland, S. M., and **Patzkowsky, M. E.**, 1997, Distal orogenic effects on peripheral bulge sedimentation: Middle and Upper Ordovician of the Nashville Dome: *Journal of Sedimentary Research*, v. 67, p. 250-263.
- Patzkowsky, M. E.**, and Holland, S. M., 1996, Extinction, invasion, and sequence stratigraphy: Patterns of faunal change in the Middle and Upper Ordovician of the eastern United States, p. 131-142 in Witzke, B. J., Ludvigson, G. A., and Day, J. E., eds., Paleozoic Sequence Stratigraphy: Views from the North American Craton: *Geological Society of America Special Paper* 306.
- Holland, S. M., and **Patzkowsky, M. E.**, 1996, Sequence stratigraphy and long-term paleoceanographic change in the Middle and Upper Ordovician of the eastern United States, p. 117-129 in Witzke, B. J., Ludvigson, G. A., and Day, J. E., eds., Paleozoic Sequence Stratigraphy: Views from the North American Craton: *Geological Society of America Special Paper* 306.
- Patzkowsky, M. E.**, 1995, A hierarchical branching model of evolutionary radiations: *Paleobiology*, v. 21, p. 440-460
- Patzkowsky, M. E.**, 1995, Gradient analysis of Middle Ordovician brachiopod biofacies: biostratigraphic, biogeographic, and macroevolutionary implications: *Palaios*, v. 10, p. 154-179.
- Patzkowsky, M. E.**, and Holland, S.M., 1993, Biotic response to a Middle Ordovician paleoceanographic event in eastern North America: *Geology*, v. 21, p. 619-622.
- Patzkowsky, M. E.**, Smith, L. H., Markwick, P. J., Engberts, C. J., and Gyllenhaal, E. D., 1991, Application of the Fujita-Ziegler paleoclimate model: Early Permian and Late Cretaceous examples: *Palaeogeography, Palaeoclimatology, Palaeoecology*, v. 86, p. 67-85.
- Gyllenhaal, E. D., Engberts, C. J., Markwick, P. J., Smith, L. H., and **Patzkowsky, M. E.**, 1991, The Fujita-Ziegler model: a new semi-quantitative technique for estimating paleoclimate from paleogeographic maps: *Palaeogeography, Palaeoclimatology, Palaeoecology*, v. 86, p. 41-66.
- Patzkowsky, M.E.**, and Holland, S.M., 1988, *Discussion of* Upper Devonian Catskill Delta margin cyclic sedimentation: Brallier, Scherr, Foreknobs Formations of Virginia and West Virginia: *Geological Society of America Bulletin*, v. 100, p. 993.
- Patzkowsky, M. E.**, 1988, Differential response of settling larvae to resident colony density in two species of *Bugula* (Bryozoa: Cheilostomata): *Journal of Experimental Marine Biology and Ecology*, v. 124, p. 57-63.

Articles in Books:

Patzkowsky, M. E. 2019. Commentary on Walker and Laporte (1970), pp. 7-8 in Lyons, S. K., Behrensmeyer, A. K., and P. J. Wagner (Eds.), *Foundations of Paleoecology: Classic Papers with Commentaries*, University of Chicago Press.

Patzkowsky, M. E. 2019. Commentary on Cisne and Rabe (1978), pp. 105-106 in Lyons, S. K., Behrensmeyer, A. K., and P. J. Wagner (Eds.), *Foundations of Paleoecology: Classic Papers with Commentaries*, University of Chicago Press.

Patzkowsky, M. E., 2002, Orthida, *McGraw-Hill Encyclopedia of Science and Technology*, 9th Edition, v. 12, p. 587-588.

Patzkowsky, M. E., 2002, Rhynchonellida, *McGraw-Hill Encyclopedia of Science and Technology*, 9th Edition, v. 15, p. 545-546.

Patzkowsky, M. E., 2002, Spiriferida, *McGraw-Hill Encyclopedia of Science and Technology*, 9th Edition, v. 17, p. 277-278.

Patzkowsky, M. E., 2002, Strophomenida, *McGraw-Hill Encyclopedia of Science and Technology*, 9th Edition, v. 17, p. 543-544.

Patzkowsky, M. E., 2000, Background Extinction, *McGraw-Hill 2001 Yearbook of Science & Technology*, p. 38-40.

Kump, L. R., Gibbs, M. T., Arthur, M. A., **Patzkowsky, M. E.**, and Sheehan, P. M., 1995, Hirnantian glaciation and the carbon cycle, in Cooper, J.D., Droser, M.L., and Finney, S.L., eds., *Ordovician Odyssey: Short Papers for the Seventh International Symposium on the Ordovician System*, Pacific Section Society for Sedimentary Geology (SEPM), Fullerton, CA., p. 299-302.

Patzkowsky, M. E., 1995, Ecologic aspects of the Ordovician radiation of articulate brachiopods, in Cooper, J.D., Droser, M.L., and Finney, S.L., eds., *Ordovician Odyssey: Short Papers for the Seventh International Symposium on the Ordovician System*, Pacific Section Society for Sedimentary Geology (SEPM), Fullerton, CA., p. 413-414.

Patzkowsky, M. E., 1987, Inferred water flow patterns in the fossil *Fistulipora* McCoy (Cystoporata, Bryozoa), in Ross, J.R.P., ed., *Bryozoa: Present and Past*: Western Washington University, Bellingham, WA., p. 213-219.

Invited Editorials, Comments and Replies, Book Reviews, Citations:

Reddin, C. J., Aberhan, M., Dimitrijevic, D., Dowding, E. M., Kocsis, Á. T., Mathes, G., Nätscher, P. S., **Patzkowsky, M. E.**, and W. Kiessling. 2023 Oversimplification risks too much: a response to 'How predictable are mass extinction events?'. *R. Soc. Open Sci.* 10: 230400.

Patzkowsky, M. E., 2011, Presentation of the 2009 Charles Schuchert Award of the Paleontological Society to Thomas D. Olszewski: *Journal of Paleontology*, v. 85, p. 503-504.

Holland, S. M. and **Patzkowsky, M. E.**, 2002, Stratigraphic Paleobiology: *Priscum*, v. 11, p. 6-7.

Patzkowsky, M. E., 2002, Evolutionary Paleoeology: The Historical Context of Macroevolutionary Change edited by W. D. Allmon and D. J. Bottjer: *Ecoscience*, v. 9, p. 552.

Patzkowsky, M. E., 2001, Paleocommunities-a case study from the Silurian and Lower Devonian edited by A. J. Boucot and J. D. Lawson: *Historical Biology*, v. 15, p. 357-359.

Patzkowsky, M. E., 2000, Palaeoecology: Ecosystems, Environments, and Evolution by P.J. Brenchley and D.A.T. Harper: *Palaios*, v. 15, p. 255.

Patzkowsky, M.E., 1993, Bryozoan Evolution by F. K. McKinney and J. B. C. Jackson: *Journal of Geology*, v. 101, p. 127-128.

Papers Presented at Professional Meetings: over 150 total; below 2012-present only.

Patzkowsky, M. E., Irizarry, K. M., Kocsis, Á., and W. Kiessling. 2023. Environmental affinities and the diversification of early Paleozoic brachiopods. *Geological Society of American Annual Meeting*.

Irizarry, K.M., **Patzkowsky, M.E.**, and K. V. Lau. 2022. Did Persistently Low Oxygen Conditions Slow Diversification during the Latter Half of the Cambrian. 2022 *SACNAS The National Diversity in STEM Conference* Puerto Rico.

Irizarry, K.M., **Patzkowsky, M.E.**, and K. V. Lau. 2022. Did Persistently Low Oxygen Conditions Slow Diversification during the Latter Half of the Cambrian. *Geological Society of American Annual Meeting*.

Congreve, C. R., **Patzkowsky, M. E.**, and P. J. Wagner. 2021. An early burst in brachiopod evolution corresponding with significant climatic shifts during the Great Ordovician Biodiversification Event *Geological Society of America Annual Meeting*.

Sclafani, J. A., Congreve, C. R., and **M. E. Patzkowsky**. 2020. Do phylogenetic relationships predict ecological similarity? *Geological Society of America Annual Meeting*. Online, Oct. 2020.

Sclafani, J. A., Congreve, C. R., and **M. E. Patzkowsky**. 2020. Biogeographic variation in morphological disparity of Strophomenida (Brachiopoda). *Geological Society of America Annual Meeting*. Online, Oct. 2020.

Jones, H. L., Whiteside, J., Röhl, U., Westerhold, T., Hull, P.M., Birch, H., Alegret, L., Henehan, M. J., Lowery, C.M., Negra, M.H., Sepulveda, J., Van Dijk, J., Vellekoop, J., **Patzkowsky, M.E.**, and T.J. Bralower. 2020. The role of the marine biological pump in driving ecosystem recovery following the Cretaceous-Paleogene (K-Pg) mass extinction event. *Geological Society of America Annual Meeting*. Online, Oct. 2020.

Irizarry, K. and **M. E. Patzkowsky**. 2020. A macroecological perspective on the Cambrian origins of rhynchonelliform brachiopods. *Geological Society of America Annual Meeting*. Online, Oct. 2020.

- Irizarry, K. and **M. E. Patzkowsky**. 2020. Environmental origin of a major marine invertebrate clade, the rhynchonelliform brachiopods. 2020 SACNAS Conference, the National Diversity in STEM Conference.
- *Congreve, C. R., Sclafani, J. A. and **M. E. Patzkowsky**. 2019. Assessing the fit of environmental affinities to phylogenetic trees in strophomenoid brachiopods across the Ordovician mass extinction. *Geological Society of America Annual Meeting*. Phoenix, AZ, Sept. 2019.
- Patzkowsky, M. E.** 2019. Climate change and species response: an unfulfilled promise of stratigraphic paleobiology. *North American Paleontological Convention*, Riverside CA, June 2019.
- *Congreve, C. R., Sclafani, J. A. and **M. E. Patzkowsky**. 2019. The impact of environmental preference and geographic occupation on diversification and survivorship during the Ordovician mass extinction. *North American Paleontological Convention*, Riverside CA, June 2019.
- *Cleveland, C., **Patzkowsky, M. E.**, and R. Graham. 2019. Oreodonts adapt to expanding grasslands in Miocene North America and then go extinct. American Society of Mammalogists Annual Meeting in Washington D.C., Paper No. 341
- * Cleveland, C., **Patzkowsky, M. E.**, and R. Graham. 2019. Oreodont adaptation and extinction in the Central High Plains, Miocene North America. Society of Vertebrate Paleontologists Annual Meeting in Brisbane, Australia, Technical Session III on Wednesday, October 9, 2019.
- Patzkowsky, M. E.**, Congreve, C. and P. J. Wagner. 2018. An application of birth-death models to phylogenies to determine the timing of the Ordovician radiation. Keynote Presentation. International Palaeontological Congress V, Paris France.
- Gazze, C., Bourne, A., Roselle, B., Christie, M., Sclafani, J. A., and **M. E. Patzkowsky**. 2018. *Leptaena* (Brachiopoda) morphology across the Late Ordovician mass extinction. *Geological Society of America Annual Meeting*.
- Roselle, B., Gazze, C., Bourne, A., Christie, M., Sclafani, J. A., and **M. E. Patzkowsky**. 2018. Quantifying morphological changes among *Rafinesquina* (Brachiopoda) with 3D photogrammetry. *Geological Society of America Annual Meeting*.
- Congreve, C. R. and **M. E. Patzkowsky**. 2018. The impact of biogeography on diversification and survivorship during the Ordovician mass extinction. *Geological Society of America Annual Meeting*.
- Sclafani, J. A., Congreve, C. R., Christie, M., Bourne, A., Gazze, C., Roselle, B., and **M. E. Patzkowsky**. 2018. Using phylogenetic trees and 3D morphometrics to understand ecological change during the Late Ordovician mass extinction and recovery. *Geological Society of America Annual Meeting*.

- Christie, M., Sclafani, J. A., Bourne, A., Cone, M., Gazze, C., O'Brien, M., Roselle, B., and **M. E. Patzkowsky**. 2018. Three-dimensional changes in morphological diversity of brachiopods across the Richmondian Invasion, Late Ordovician. *Geological Society of America Annual Meeting*.
- Cleveland, C., **Patzkowsky, M. E.**, and R. W. Graham. 2018. Does oreodont morphology and their extinction correlate with grassland expansion in North America's central-western Great Plains? *Geological Society of America Annual Meeting*.
- Congreve, C. R., Wagner, P. J., and **M. E. Patzkowsky**. 2017. Short or long fuse: timing of the Ordovician Radiation using the fossilized birth-death model. *Abstracts with Programs - Geological Society of America Annual Meeting*.
- Whitaker, A. F., Christie, M., and **M. E. Patzkowsky**. 2017. Environmental gradient analysis in the Upper Ordovician Taconic foreland basin, Central Appalachians, USA. *Abstracts with Programs - Geological Society of America Annual Meeting*.
- Christie, M., **Patzkowsky, M. E.**, Dietl, G. P., Kelley, P. H., and A. F. Whitaker 2017. Changes in taxonomic and functional ecology north of a biogeographic boundary during the Pliocene to Modern, Western North Atlantic. *Abstracts with Programs - Geological Society of America Annual Meeting*.
- Brown, G. M., Sclafani, J. A., Hajek, E. and **M. E. Patzkowsky**. 2016. Biofacies interpretation of shelf margin succession: San Andres Formation (Guadalupian, Middle Permian), Last Chance Canyon, New Mexico. *Abstracts with Programs - Geological Society of America Annual Meeting*.
- Christie, M., Congreve, C. R., and **M. E. Patzkowsky**. 2016. Phylogenetic diversity of the Lucinidae in the western Atlantic using fossils and molecules. *Abstracts with Programs - Geological Society of America Annual Meeting*.
- Congreve, C. R., Krug, A. Z., and **M. E. Patzkowsky**. 2016. Boom and bust; analyzing shifts in evolutionary rates of strophomenoid brachiopods during the Late Ordovician mass extinction using a phylogenetic framework. *Abstracts with Programs - Geological Society of America Annual Meeting*.
- Sclafani, J. A., Congreve, C. R., Krug, A. Z., and **M. E. Patzkowsky**. 2016. How similar are sisters? The relationship between morphology, ecology, and evolutionary history. *Abstracts with Programs - Geological Society of America Annual Meeting*.
- Whitaker, A. F., Christie, M., and **M. E. Patzkowsky**. 2016. Environmental affinities and distribution of fossil taxa in the Taconic foreland basin, Tennessee to Pennsylvania, USA. *Abstracts with Programs - Geological Society of America Annual Meeting*.
- Brown, G. M., Sclafani, J. A., Trampush, S., Hajek, E. and **M. E. Patzkowsky**. 2015. Distribution and abundance of benthic marine taxa in shelf margin depositional sequences: San Andres Formation (Guadalupian, Permian), Last Chance Canyon, New Mexico. *Abstracts with Programs - Geological Society of America Annual Meeting*.

- Christie, M., **Patzkowsky, M. E.**, and C. R. Congreve. 2015. Phylogenetic diversity of the Lucinidae from the Pliocene to Modern in the Western Atlantic. *Abstracts with Programs - Geological Society of America Annual Meeting*.
- Holland, S. M., and **M. E. Patzkowsky**. 2015. The stratigraphy of mass extinction. *Abstracts with Programs - Geological Society of America Annual Meeting*.
- Krug, A. Z., Congreve, C. R., and **M. E. Patzkowsky**. 2015. Differential recovery from clustered originations in the recovery from the Late Ordovician mass extinction. *Abstracts with Programs - Geological Society of America Annual Meeting*.
- Krug, A. Z., Congreve, C. R., and **M. E. Patzkowsky**. 2015. The impact of the Late Ordovician mass extinction on the tree of life. *Astrobiology Science Conference*.
- Patzkowsky, M. E.**, Congreve, C. R., Krug, A. Z., and J. A. Sclafani. 2015. Onshore-offshore patterns of Ordovician diversification in the brachiopod order Strophomenida: A phylogenetic perspective. *Abstracts with Programs - Geological Society of America Annual Meeting*.
- Sclafani, J. A., Congreve, C. R., Krug, A. Z., and **M. E. Patzkowsky**. 2015. Dynamics of extinction and recovery: A study of morphospace shifts during and after the Late Ordovician mass extinction. *Abstracts with Programs - Geological Society of America Annual Meeting*.
- Whitaker, A. F., Christie, M., and **M. E. Patzkowsky**. 2015. Paleoecological analysis of Furnace Gap, a new Upper Ordovician ophiuroid locality in Pennsylvania. *Abstracts with Programs - Geological Society of America Annual Meeting*.
- Christie, M., and **Patzkowsky, M. E.**, 2014, Taxonomic and ecological changes across the Pliocene-Pleistocene extinction and recovery: different mechanisms in the Caribbean and North America? *Abstracts of the Tenth North American Paleontological Convention*.
- Patzkowsky, M. E.**, and Holland, S. M., 2014, Stratigraphic Paleobiology and the origin of regional biotas. *Abstracts of the Tenth North American Paleontological Convention*.
- Lavine, R. J., Orzechowski, E. A., Pierrehumbert, N. D., Rojas, A., Sclafani, J. A., Yager, J. A., Christie, M., McMullen, S. K., Holland, S. M., and **M. E. Patzkowsky**. 2014. Ecological gradient structure in the Mississippian Lodgepole Formation, southwest Montana. *Geological Society of America Annual Meeting Abstracts with Programs*.
- Loughney, K. M., Jarochowska, E., Keller, A. L., Kimmig, J., Singer, A., McMullen, S. K., Christie, M., Holland, S. M., and **M. E. Patzkowsky**. 2014. Sequence stratigraphic architecture drives biofacies distribution of the Mississippian Lodgepole Formation in south-central Montana. *Geological Society of America Annual Meeting Abstracts with Programs*.
- Sclafani, J. A., Krug, A. Z., and **M. E. Patzkowsky**. 2014. Biogeographic patterns of brachiopod families as an explanation for phylogenetic clumping following the Late Ordovician mass extinction. *Geological Society of America Annual Meeting Abstracts with Programs*.

- Christie, M., and **M. E. Patzkowsky**. 2014. Biogeographic changes from the Pliocene to Modern in the Atlantic Coastal Plain. *Geological Society of America Annual Meeting Abstracts with Programs*.
- Schueth, J. D., Bralower, T. D., **Patzkowsky, M.**, and S. Jiang. 2014. The role of survivor incumbency in the evolutionary recovery of calcareous nannoplankton from the Cretaceous/Paleogene (K/PG) mass extinction. *Geological Society of America Annual Meeting Abstracts with Programs*.
- Krug, A. Z., Congreve, C. R., and **M. E. Patzkowsky**. 2014. Phylogenetically random extinctions and the preservation of phylogenetic diversity during the Late Ordovician mass extinction. *Geological Society of America Annual Meeting Abstracts with Programs*.
- Congreve, C. R., Krug, A. K., and **M. E. Patzkowsky**. 2014. Phylogenetic patterns of strophid brachiopods and their relationship to the Ordovician mass extinction event. *Geological Society of America Annual Meeting Abstracts with Programs*.
- Whittaker, A. F., Christie, M., and **M. E. Patzkowsky**. 2014. Pectinidae along the Western Atlantic Coastal Plain: Miocene to Recent. *Geological Society of America Annual Meeting Abstracts with Programs*.
- Jarochowska, E., Keller, A. L., Kimmig, J., Larina, E., Lavine, R. J., Loughney, K. M., Orzechowski, E. A., Pierrehumbert, N. D., Rojas, A., Sclafani, J. A., Singer, A., Yager, J. A., Christie, M., McMullen, S. K., Holland, S. M., and **M. E. Patzkowsky**. 2014. Sequence stratigraphic control over biofacies distribution and ecological gradients in the Mississippian Lodgepole Formation, Montana. *Palaeontological Association Annual Meeting*.
- Krug, A. Z., and **Patzkowsky, M. E.**, 2013, Phylogenetically clustered origination and extinction following the Late Ordovician mass extinction: *Geological Society of America Abstracts with Programs*.
- Christie, M., and **Patzkowsky, M. E.**, 2013, Development of a biogeographic boundary: Pliocene to Recent in the Western Atlantic Coastal Plain: *Geological Society of America Abstracts with Programs*.
- Patzkowsky, M. E.**, Deptola, T. J., and Perkons, E., 2012, Spatial variation in environmental and faunal gradients as a source of hidden beta diversity: *Geological Society of America Abstracts with Programs*.
- Deptola, T. J., and **Patzkowsky, M. E.**, 2012, Organization and distribution of Middle Devonian biofacies within a sequence stratigraphic framework, Huntingdon County, Pennsylvania, USA: *Geological Society of America Abstracts with Programs*.
- Schneider, L. J., Bralower, T. J., **Patzkowsky, M. E.**, and Kump, L. R., 2012, Global nannoplankton dynamics across the Paleocene-Eocene thermal maximum: a statistical approach: *AGU Annual Meeting Abstract*.
- Graham, H., **Patzkowsky, M. E.**, Wing, S. L., and Freeman, K. H., 2012, Insights to fossil and

geochemical archives of forest structure from foliar flux, isotopic and biomarker gradients in modern canopies: *AGU Annual Meeting Abstract*.

Henderson, A. K., Graham, H., **Patzkowsky, M.**, Fox, D., and Freeman, K. H., 2012, Angiosperm n-alkane distribution patterns and the geologic record of C₄ grassland evolution: *AGU Annual Meeting Abstract*.

Participation in Workshops and Short Courses:

Organized and presented on my own a one-day workshop on Stratigraphic Paleobiology at the 2015 Annual Meeting of the Geoscience Society of New Zealand, Wellington, New Zealand.

Organized and presented workshop on Stratigraphic Paleobiology at the Fourth International Paleontological Congress, Mendoza, Argentina, 2014.

Future of Astrobiology Roadmap, NASA Flight Facility, Wallops Island, VA, June 17-20, 2013. Pre-meeting Mentor and Group Leader.

Center for Astrobiology, University of Arizona College of Science, Evolutionary Watersheds: Genome or Biome?, Oct. 11-13, 2007: invited speaker.

EARTHTIME III, Santa Fe Institute, Santa Fe, New Mexico, Sept. 10-12, 2007: presenter.

Marine Working Group of the Paleobiology Database, two to three meetings a year, 1998-present: invited participant.

Penrose Conference, Linking Spatial and Temporal Scales in Ecology and Paleoecology, May 1998: invited oral presentation and discussion panelist.

Midcontinent Ordovician Working Group, Champaign, Illinois, invited participant. January 1998.

International Geological Correlation Program (IGCP) Project 335, Biotic Recoveries from Mass Extinctions, 1995; invited participant.

Geological Society of America Short Course, Computer Modeling of Cyclic Carbonate Sequences, October 28, 1990, Dallas, Texas: Student participant.

Paleogeographic Atlas Project, University of Chicago, First Annual Meeting, June 21 -22, 1990: Invited poster presentation.

Invited Lectures:

Patzkowsky, M. E., Congreve, C. and P. J. Wagner. 2018. An application of birth-death models to phylogenies to determine the timing of the Ordovician radiation. Keynote Presentation. International Palaeontological Congress V, Paris France.

University of Georgia, Department of Geology Colloquium Series, April 2016, Title: The ecology of origination and extinction in the fossil record.

Penn State, Department of Geosciences Colloquium Series, February 2012, Title: Look Local, Think Global: Local and Regional Controls on Global Phanerozoic Diversity

University of Chicago, Geophysical Sciences Colloquium Series, May 2009, Title: Temporal and Spatial Scales of Biodiversity

Center for Astrobiology, University of Arizona College of Science, Evolutionary Watershed Workshop, October 2007, Title: Signal and Noise in the History of Life: Mass Extinctions and Biodiversity Cycles

Dickinson College Geology Seminar Series, October 2007, Title: The Fossil Record of Mass Extinctions and Biodiversity Cycles

University of New Mexico, Department of Earth and Planetary Sciences, March 2007, Title: Recent Advances in Understanding the Fossil Records of Mass Extinction: The Late Ordovician.

Virginia Polytechnic Institute, Geobiology Colloquium Series, April 2005, Title: Evidence for Species Saturation in the Early Paleozoic.

Swarthmore College, Department of Mathematics and Statistics, February 2004, Title: Understanding the Ups and Downs of Species Diversity through Geologic Time: Testing Global Diversification Models.

Woods Hole Oceanographic Institution, PaleoLunch Group, April 2002, Title: The Late Ordovician Mass Extinction and Glaciation: New Views of an Old Biotic Crisis.

Cornell University, Department of Earth and Atmospheric Sciences, April 2002, Title: The Late Ordovician Mass Extinction and Glaciation: New Views of an Old Biotic Crisis.

Field Museum of Natural History, Chicago, Illinois, October 7, 2000. Symposium in Memory of J. John Sepkoski, Jr. Title: Community Structure during the Ordovician Radiations.

University of Georgia, Department of Geology Seminar, February 17, 2000. Title: Episodic Change in the History of Life.

University of Cincinnati, Department of Geology Colloquium Series, May 21, 1999. Title: Episodic Change in the History of Life.

Indiana University, Department of Geological Sciences, Departmental Seminar Series, May 6, 1999. Title: Episodic Change in the History of Life.

Indiana University, Department of Geological Sciences, Brown Bag, May 5, 1999. Title: Models for Simulating the Fossil Record.

National Museum of Natural History, Smithsonian Institution, Department of Paleobiology, February 22, 1996. Title: The role of environment and geography in the Ordovician radiation of articulate brachiopods.

Pittsburgh Geological Society, April 19, 1995. Title: Ordovician extinctions and paleoceanography: examples from eastern North America.

Pennsylvania State University, Department of Geosciences, Spring Colloquium Series on Celestial Mechanics and Earth History. February 22, 1994. Title: Extraterrestrial versus terrestrial causes of extinction.

University of Chicago, Evolution and Morphology Seminar Series, May 27, 1993. Title: Analysis of a regional extinction event (Middle Ordovician: North America): distinguishing apparent from real patterns in the marine fossil record.

Northwestern University, Department of Geological Sciences, Weekly Seminar Series, January, 8, 1993. Title: Sea-level changes and extinction in the Paleozoic

Field Trips Led by Invitation:

Holland, S. M, and **Patzkowsky, M. E.**, The Richmondian Invasion: Understanding the faunal response to climate change through stratigraphic paleobiology. Type Cincinnati (Upper Ordovician) outcrops, northern Kentucky, southwestern Ohio, and southeastern Indiana. Mid-meeting field trip for the Ninth North American Paleontological Convention, June 2009.

Slingerland, R., **Patzkowsky, M. E.**, and Peterson, D., Pittsburgh Association of Petroleum Geologists Field Trip, Facies and Sedimentary Environments of the Catskill Systems Tract in Central Pennsylvania, May 1-2, 2009

Advanced Sedimentology Class at Franklin and Marshall College: lectured and directed a field project on cyclic and sequence stratigraphy of Middle Ordovician Carbonates of Central Pennsylvania. October 1-2, 1994.

University of Chicago Field Course, one-half day field trip to study Appalachian stratigraphy. September 5, 1993.

Field Research:

- 2013 Stratigraphy of the Ordovician-Silurian boundary, Monitor Range, Nevada
- 2006-2010 Paleontology and stratigraphy of the Bighorn Dolomite, Bighorn Mountains, Wyoming
- 2001-2005 Paleoecology of an Ordovician biotic invasion, Cincinnati Arch, Ohio, Kentucky, Indiana
- 1997-1999 Paleontology and stratigraphy of Pennsylvanian-Permian boundary in Kansas
- 1993-2000 Paleontology and stratigraphy of Ordovician Nashville Group, Nashville Dome, TN

Student Field Research Supervised:

2020-2021 Middle and Upper Cambrian stratigraphy and paleoecology, SW Montana (Irizarry)
2015-2016 Middle Permian stratigraphy and paleoecology, Guadalupe Mtns, W Texas (Brown)
2012-2013 Plio-Pleistocene paleoecology of Atlantic Coastal Plain (M. Christie)
2009-2012 Middle Devonian paleoecology and stratigraphy of Central Pennsylvania (T. Deptola)
2009-2012 Upper Ordovician paleoecology and stratigraphy (E. Perkons)
2005-2009 Middle Mississippian paleoecology in the Illinois Basin (J. Bonnelly)
2005-2009 Paleogene paleoecology of Gulf Coast, USA (J. Sessa)
2005-2009 Upper Devonian stratigraphy and taphonomy of Red Hill, PA (D. Peterson)
1992-1995 Upper Ordovician carbon isotope stratigraphy, Central Pennsylvania (L. Slupik)

COURSES TAUGHT (Last 5 Years)

Graduate Courses: Field Stratigraphy, Multivariate Analysis in Geosciences, Paleobiology Seminar, Sequence Stratigraphy of Carbonate Rocks

Undergraduate Courses: Geobiology, Paleontology and Fossils, Senior Thesis Writing

Other Teaching Efforts:

2014-2017 Developed, organized, and led Stratigraphic Paleobiology field course for 12 US and international graduate students in the Tobacco Root Mountains, Montana. Field course sponsored by the Paleontological Society.

2005-2006 Summer Instructor in Analytical Paleobiology Summer Course sponsored by the Paleobiology Database, National Center for Ecological Analysis and Synthesis, Santa Barbara, CA.

2008-2009 Coordinating instructor for a summer teacher's workshop sponsored by the NASA Space Grant Consortium. Course Title: Earth's History: Interaction Between Life and the Environment.

Educational Grants:

1995 Pennsylvania State University, \$5000, CAUSE (Center for Advanced Undergraduate Studies and Experience) Award for the Improvement of Undergraduate Instruction

Supervision of Postdoctoral Scholars:

Curtis Congreve

Supervision of Graduate Students:

Completed:

Ph.D.	M.S.
Tom Olszewski	Leta M. Slupik

Achim D. Herrmann
Andrew Z. Krug
James R. Bonelli, Jr.
Jocelyn Sessa
Max Christie
Judi Sclafani
Claire Cleveland

Andrew Z. Krug
Daniel Peterson
Travis Deptola
Eriks Perkons
Garett Brown
Kayla Irizarry

Current:

Kayla Irizarry, Ph.D

Membership on Graduate Student Committees (PSU):

Mark Gibbs, Ph.D.
Paul Zell, Ph.D.
Jennifer Eigenbrode, Ph.D.
Lauren Milideo, Ph.D.
Jon Schueth, Ph.D.
Clay Magill, Ph.D.
Shelia Trampush, Ph.D.
Heather Jones, Ph.D.
Kate Groswiler, Ph.D
Gabiella Harris, Ph.D

Rich Pancost, Ph.D.
Ahtsu Enyhu, Ph.D
Ellen Currano, Ph.D.
Leah Schneider. Ph.D.
Heather Graham Ph.D.
Ellen Chamberlin, Ph.D
Michael Donovan, Ph.D.
Alison Karp, Ph.D.
Fai Chanchai, Ph.D.

Mohammed Al-Mughiery, M.S.
Rebecca Blevins, M.S.
Mary Jo Alfano, M.S.
Jennifer Lane, M.S.
Chekwube Enunwa, M.S.
Barbara Cariglino, M.S.
Jonathan Schueth, M.S.
Monica Carvalho, M.S.
Cassandra Knight, M.S.
Jiuyuan Wang, M.S.
Lisa Merkhofer, M.S.
Victoria Fortiz, M.S.
Evan Greenburg, M.S.
Garrett Shepherd, M.S.

Jennifer Mangan, M.S.
Dan Leppold, M.S.
Mindy Folland, M.S.
Lauren Fuqua, M.S.
Philip Morath, M.S.
Andrea Kalb, M.S.
Melissa Pardi, M.S.
Sara Elliot, M.S.
Angela Chung, M.S.
Christine Doman, M.S.
Isabel Leon Y Leon, M.S.
Gregory Smith, M.S.
Ashley Grey, M.S.

Membership on Graduate Student Committees (Other institutions):

Garett Brown, Ph.D., University of Georgia
Frank Forcino, Ph.D., University of Alberta
Kate Bulinski, Ph.D., University of Cincinnati
Karen Layou, Ph.D., University of Georgia

Membership on Ph.D. Qualifying Exam Committees:

As Department Rover: Cindy Werner, Scott Miller, Maggie Benoit, Kramer Campen, Jon Barton, Emily Beal, Aaron Regberg, Doug Edmonds, Josh Durin, Bryan Kaproth, Clayton Magill, Mandi Klingensmith, Virginia Marcon, Peter Miller
Regular Committee Member: Robert Dias, Kosei Yamaguchi, Tom Battenhouse, Peter Sak, Ellen Currano, Barbara Cariglino, Jon Scheuth, Dan Jones, Matthew Rhodes, Piyali Chanda

Supervision of Undergraduate Theses and Independent Research Projects:

Dan Broadway, Earth Sciences	1994
Andrew Hoover, Geosciences	1994-1995
Beth Hills, Geosciences	1994-1995
Mimi Schrauder, Earth Sciences	1995
John Voorhies, Earth Sciences	1997
Karen Bezusko, Geosciences	1998-1999
Isabel Fitzgerald, Geosciences	1998-1999
Janine Sokalak, Earth Sciences	1999
Scott Martino, Earth Sciences	2001
Joshua Panis, Earth Sciences	2001
Todd Engelder, Geosciences	2004-2005
Sofia Joughin, Geosciences	2006-2007
Eriks Perkons, Geosciences	2007-2008
Ariela Ferris, Geobiology	2010-2011
Sara Fritz, Geobiology	2011-2012
Claudia Shuman, Geobiology	2011-2012
Rajvi Amin, Geosciences	2012-2013
Nate Sonnenthal, Geobiology	2013
Mohd Rizal Bin Lai, Geosciences	2013-2014
Alex Henry, Geosciences	2013-2014
Shaun Woll, Geosciences	2014-2015
Zachary Miller, Geosciences	2014-2015
Carly Gazze, Geosciences	2017-2018
Audrey Bourne, Geosciences	2017-2018
Brooke Roselle, Geosciences	2017-2018
Anna Whitaker, Geobiology Honors	2017-2018
Eric Andersen, Geobiology	2020

Other Advising Activities:

Undergraduate academic advisor, 1999-2003, 2011-2013

SERVICE

Service to the Department and College:

Member, College of EMS of Tenure-Line Faculty Advisory Committee 2023-2024
Chair, College of EMS Promotion and Tenure Committee, 2018-2019

Member, College of EMS Promotion and Tenure Committee, 2016-2019
Member, Faculty Senate 2015-2018
Member, Faculty Senate Committee on Faculty Affairs, 2016-2018
Member, Faculty Senate Committee on Intercollegiate Athletics, 2015-2016
Chair, Sedimentary Geology Faculty Search Committee, 2016-2017
Member, Promotion and Tenure Committee, Geosciences, 2002-2004, 2013-2015, 2023-2024
(Chair 2014-2015, 2023-2024)
Undergraduate Program Committee, 1999-2001, 2010-2017
Graduate Admissions Committee, 1992-1997, 2003-2004, 2012-2014 (Chair 1996-1997, 2012-2014)
Member, Radiogenic Isotope Search Committee, Dept. of Geosciences, 2013-2014
Associate Head of the Undergraduate Program, Geosciences, 2011-2012
Judge, EMS Graduate Student Poster Session, Sept. 16, 2010
Chair, EMS Museum Advisory Board, 2004-2008
Department Rover for Ph.D. Candidacy Exams, 1999-2001; 2006-2009
Presentation at EMEX 2006
Chair, EMS Museum Director Search Committee, 2003
Faculty Teaching Evaluation Committees, 2003- 2004
Chair, EMS Museum Revitalization Committee, 2002-2003
Member, Geosciences Facilities Ad Hoc Committee, 2002
EMS representative, Biodiversity and Ecosystems, Environmental Consortium, 2001- 2002
Chair, Geobiology Faculty Search Committee, 2000-2001
Reviewed proposals for the EMS Wilson Award, 2001
Geosciences Department Executive Committee, 2000-2001
EMS Committee on Information Science and Technology Minor, 1999-2000
Department Graduate Program Brochure Committee, 1998-1999
Graduate Program Committee, 1994-1998
Led a day-long field trip to study local stratigraphy and paleontology for the PSU Geology Club, September 18, 1993.
Co-organizer (with Jim Kasting) of Department of Geosciences Colloquium Series, Spring 1996, Origin and Early Evolution of Life

Service to the University:

Keynote speaker for the Pennsylvania Junior Science and Humanities Symposium sponsored by the Department of Curriculum and Instruction, College of Education. Oct. 31, 1994.
Judge, Penn State Graduate Research Exhibition, April, 1995.
Lectured for Alumni College 1995 sponsored by the Penn State Alumni Association, July 18, 1995.
Secretary, Penn State Chapter of Sigma Xi, The Scientific Research Society, 1994-1997.
Guest Speaker for SOARS (Summer Opportunities and Research for Space) sponsored by the Pennsylvania Space Grant College, June 27, 1996.

Service to the Public:

Radio Park Elementary School, presented the rock cycle and fossils to third-graders, May, 2010.
Brownie Troop, presented Fossils and How They Form to Brownie Troop 41374, April, 2010.

Radio Park Elementary School, volunteered for a fossil-collecting trip and talked with first grade classes about fossils, June, 2008.

Radio Park Elementary School, volunteered for a fossil-collecting trip and talked with first and second grade classes about fossils, June 7 and 8, 2006.

Led a fossil collecting trip for the Junior Museum of Central Pennsylvania, September 27, 1995.

Served as mentor-for-a-day for two fourth grade students associated with the Career Shadowing Program sponsored by the American Association of University Women - Huntingdon Branch, April 7, 1995.

Service to Business and Industry:

Reviewed textbook for W.H. Freeman and Company Publishers, Fall 1994

Reviewed textbook for Prentice Hall, Spring, 1999

Reviewed books for University of Chicago Press, Spring 2000 and 2004

Service to the Profession:

Guest Editor, *Paleobiology* 50th Anniversary Issue, Expected Vol 51, Issue 1, February 2025
Editor, *Paleobiology*, 2016-2023.

Associate Editor, *Terra Nova*, 2015-present.

Associate Editor, *Palaios*, 2014-2017.

Editorial Board Member, *Geological Magazine*, 2013-present.

Advisory Board Member, *Paleobiology Database*, 2000-2011.

Paleontological Society Finance Committee, Member, 2008-2017.

Paleontological Society Fellows Selection Committee, Member, 2015-2017

Treasurer, *Paleontological Society*, 2002-2008.

Committee Member, *Future Research Directions in Paleontology*, Workshop and report to the National Science Foundation sponsored by the Paleontological Society, 2006.

Geological Society of America, Technical Program Committee Member, Earth Systems Processes II, 2003-2005

Geological Society of America, Steering Committee Member, Planning for Earth System Processes II, 2002-2003

Co-convener, Topical session at the Geological Society of America Annual Meeting, Boston, Fall 2001, Session Title: Stratigraphic Paleobiology.

Fieldtrip Leader, One-day excursion of Pennsylvania Sedimentologists, September, 16, 2000.

Co-convener, Special session at American Geophysical Union Spring meeting, Washington, D.C., June 2000, Session Title: Geobiology of Macroorganisms.

Session Chairperson, Geological Society of America Annual Meeting, 1998.

Committee member and contributing author of a report sponsored by the Paleontological Society to the National Science Foundation for an initiative on the Geobiology of Critical Intervals (GOCI), 1996-1997, Publication: 9/97, 82 p.

Symposium Co-organizer, NACP VI, Washington, D.C., June 1996, Symposium Title: Understanding Biodiversity Patterns: Historical and Biogeographic Perspectives.

Publications Coordinator and member of Technical Committee for the SEPM Annual Meeting, The Stratigraphic Record of Global Change, State College, PA., August 8-12, 1993:

Papers reviewed for: *Paleobiology*, *Geology*, *Palaios*, *Geological Magazine*, *Science*, *Geological Society of America Special Papers*, *Topics in Geobiology Series (Plenum Press)*; *Critical Moments in Earth History*

Series (Columbia Press), Ecology, American Naturalist, Canadian Journal of Earth Sciences, Geobiology, Geophysical Research Letters, Earth and Environmental Science Transactions of the Royal Society of Edinburgh, Diversity, Palaeontologia electronica, Palaeo-3, Nature

Proposals reviewed for: *National Science Foundation (NSF), National Aeronautics and Space Administration (NASA), National Geographic Society, Petroleum Research Fund of the American Chemical Society (PRF), National Research Council of Canada (NRCC), German Research Foundation (DFG)*

Service to Government Agencies:

Panel Reviewer, Antarctic Geology and Geophysics Program, Office of Polar Programs, National Science Foundation, 1998-2000
Panel Reviewer, Exobiology and Evolutionary Biology Program, NASA, 2009-2010

Membership in Professional Societies:

Paleontological Society, Society for Sedimentary Geology, Geological Society of America