

STEVEN M. HOLLAND
SHELLEBARGER PROFESSOR OF GEOLOGY

ADDRESS

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EDUCATION

- 1985–1990 Doctor of Philosophy, University of Chicago, Chicago, Illinois. Dissertation: Distinguishing eustasy and tectonics in foreland basin stratigraphy: the Upper Ordovician of the Cincinnati Arch and Appalachian Basin, 390 p.
- 1981–1985 Bachelor of Science, Summa cum Laude with High Honors in Geology, University of Cincinnati, Cincinnati, Ohio. Undergraduate Thesis: Taphonomy of *Platystrophia ponderosa* from the Cincinnati of southwest Ohio: general implications for brachiopod taphonomy.

PROFESSIONAL EXPERIENCE

- 2001–present Professor, Department of Geology and Department of Marine Sciences, University of Georgia. Graduate Faculty, Honors Faculty
- 1996–2001 Associate Professor, Department of Geology and Department of Marine Sciences, University of Georgia. Graduate Faculty, Honors Faculty
- 1993–1996 Assistant Professor, Department of Geology and Department of Marine Sciences, University of Georgia. Graduate Faculty, Honors Faculty (1995–present)
- 1991–1993 Assistant Professor, Department of Geology, University of Georgia. Graduate Faculty (1992–present)
- 1990–1991 Battelle Post-Doctoral Fellow, Department of Geology and Mineralogy, Ohio State University

PROFESSIONAL SOCIETIES

Geological Society of America
Paleontological Society
Society for Sedimentary Geology (SEPM)

AWARDS & HONORS

2026	Digby McLaren Medal, International Commission on Stratigraphy
2024–present	Shellebarger Professor of Geology
2024	Professor of the Year, Department of Geology, University of Georgia
2023	Exceptional Reviewer, Geological Society of America Bulletin
2022	Best paper in <i>Palaeontology</i> for 2021
2022	Professor of the Year, Department of Geology, University of Georgia
2020	Professor of the Year, Department of Geology, University of Georgia
2019	Professor of the Year, Department of Geology, University of Georgia
2017	Professor of the Year, Department of Geology, University of Georgia
2015	Best paper in <i>Palaeontology</i> for 2015
2014	Professor of the Year, Department of Geology, University of Georgia
2013	Teacher of the Year, Department of Geology, University of Georgia
2012	Top Referees, Proceedings of the Royal Society B: Biological Sciences
2012	Professor of the Year, Department of Geology, University of Georgia
2012	Teacher of the Year, Department of Geology, University of Georgia
2008	Teacher of the Year, Department of Geology, University of Georgia
2006	Centennial Fellow, Paleontological Society
2003	Charles Schuchert Award, Paleontological Society
2003	Professor of the Year, Department of Geology, University of Georgia
2002	Honorable Mention, Best Paper, Palaios. SEPM (Society for Sedimentary Geology)
2000	Honorable Mention, Best Paper, Palaios. SEPM (Society for Sedimentary Geology)
2000–2002	Distinguished Lecturer, Paleontological Society
2000	James Lee Wilson Award for Excellence in Sedimentary Geology by a Young Scientist. SEPM (Society for Sedimentary Geology)
2000	Excellence in Poster Presentation, SEPM (Society for Sedimentary Geology)
1998	Teacher of the Year, Department of Geology, University of Georgia
1997	Teacher of the Year, Department of Geology, University of Georgia
1997	Outstanding Honors Professor, Honors Program, University of Georgia
1996	Teacher of the Year, Department of Geology, University of Georgia
1994	Teacher of the Year, Department of Geology, University of Georgia
1992	Teacher of the Year, Department of Geology, University of Georgia

INVITED PRESENTATIONS

- 2019 Museum of Paleontology, University of California, Berkeley
- 2018 Department of Geosciences, Penn State University
- 2017 Department of Earth and Planetary Sciences, Northwestern University
- 2017 Ermine Cowles Case Memorial Lecture, Museum of Paleontology, University of Michigan
- 2016 Department of Earth Sciences, University of Southern California
- 2015 Royal Society discussion meeting on “Dating species divergences using rocks and clocks”.
- 2015 Department of Geological Sciences, University of Florida
- 2013 Department of Geology, Macalester College
- 2012 Weeks Lecture, Department of Geoscience, University of Wisconsin
- 2012 Georgia Climate and Society Initiative, University of Georgia
- 2012 David Meyer retirement celebration, Department of Geology, University of Cincinnati
- 2012 Department of Geology, University of Cincinnati
- 2012 Willson Center for Humanities and Arts, University of Georgia
- 2010 ConocoPhillips School of Geology and Geophysics, University of Oklahoma
- 2010 Department of Geophysical Sciences, University of Chicago
- 2009 Department of Marine Sciences, University of Georgia
- 2009 Department of Geology, College of William & Mary
- 2008 5-day short course on sequence stratigraphy and the fossil record, Nanjing Institute of Geology and Paleontology
- 2008 9th Annual Ecological Integration Symposium, Texas A&M University
- 2005 Department of Earth and Planetary Sciences, University of Tennessee
- 2005 Distinguished Lecturer, Department of Geosciences, Virginia Tech
- 2005 Department of Earth and Planetary Sciences, Harvard University
- 2004 Department of Paleobiology, Smithsonian National Museum of Natural History
- 2003 Department of Geoscience, University of Iowa
- 2002 Department of Geology, University of Cincinnati
- 2001 Department of Geophysical Sciences, University of Chicago

- 2000 Department of Geology, Western Michigan University
- 2000 Department of Geology, University of Kansas
- 2000 Department of Geology, University of Alabama
- 1999 Department of Geology, University of Michigan
- 1998 SEPM Carbonate Research Group, Annual Meeting of SEPM / AAPG, Salt Lake City, Utah
- 1998 Earth History and Paleobiology Seminar Series, Harvard University
- 1997 Department of Geology, University of Cincinnati
- 1996 Symposium on "Dimensional scaling and the stratigraphic record of episodic and periodic forcing", Annual Meeting of Geological Society of America, Denver, Colorado
- 1996 Department of Earth and Space Sciences, University of California at Los Angeles
- 1996 Fossil Fest Conference, Cincinnati Museum of Natural History
- 1995 Department of Geophysical Sciences, University of Chicago
- 1995 School of Oceanography, University of Washington
- 1994 Earth History and Paleobiology Seminar Series, Harvard University
- 1993 Geology Department, Virginia Polytechnic Institute and State University
- 1993 Symposium on "Paleobiologic Approaches to Global Change", SEPM Meeting "Stratigraphic Record of Global Change", State College, Pennsylvania
- 1993 Symposium on "Analyzing significant biotic trends through stratigraphic data", Rocky Mountain and Cordilleran Section Meeting of the Geological Society of America, Reno, Nevada
- 1990 Geology Department, University of Georgia
- 1990 Department of Earth and Planetary Sciences, Washington University
- 1990 Geology Department, University of Cincinnati
- 1989 Amoco Production Company
- 1989 ARCO Oil and Gas Company
- 1989 Geology Department, Kansas State University
- 1989 Symposium on "Paleontological Event Horizons", Northeastern Section of the Geological Society of America, Piscataway, New Jersey

TEACHING EXPERIENCE

Quantitative Biostratigraphy

Half-day short course, taught at Microfossils IV meeting in Houston, Texas. April, 2017.

Stratigraphic Paleobiology

One-day short course, taught at 4th International Paleontological Convention in Mendoza, Argentina. October, 2014.

Field Conference in Stratigraphic Paleobiology

Two-week field conference for graduate students, variably sponsored by the National Science Foundation, the Paleontological Society, and the Society for Vertebrate Paleontology. Located in the Tobacco Root Mountains and Missouri Breaks of Montana. Co-organized with Mark Patzkowsky. Summer 2014, Summer 2017, Summer 2024 (12 participants each year).

GEOL 3350: Dinosaurs

Spring 2025 (83 students), Spring 2026 (111 students)

GEOL 4010: Life, Environments & Ecologies of the Past (co-taught)

Fall 1998 (22 students), Fall 1999 (7 students), Fall 2000 (16 students), Fall 2001 (11 students)

GEOL 4050/6050: Facies Models and Stratigraphy

Fall 1998 (5 students), Fall 1999 (6 students), Spring 2001 (4 students), Spring 2002 (9 students)

GEOL 4270/6270: Geology Field School

Summer 2006 (15 students, taught one week in Utah), Summer 2007 (19 students, taught one week in Colorado), Summer 2009 (20 students, taught 1/2 week)

GEOL 4370/6370: Data Analysis in the Geosciences

Fall 1998 (14 students), Fall 2000 (6 students), Fall 2002 (14 students), Fall 2004 (7 students), Fall 2007 (8 students), Fall 2009 (17 students), Fall 2011 (21 students), Fall 2013 (25 students), Fall 2015 (23 students)

GEOL 4500/6500: Sedimentary Geology

Spring 2003 (9 students), Spring 2004 (11 students), Spring 2005 (7 students), Spring 2006 (9 students), Spring 2007 (12 students), Spring 2008 (13 students), Spring 2009 (16 students), Spring 2010 (13 students), Spring 2011 (24 students), Spring 2012 (29 students), Spring 2013 (33 students), Spring 2014 (33 students), Spring 2015 (28 students), Spring 2016 (27 students), Spring 2017 (21 students), Spring 2018 (17 students), Spring 2019 (21 students), Spring 2020 (12 students), Spring 2021 (8 students), Spring 2022 (17 students), Spring 2023 (17 students), Spring 2024 (13 students), Spring 2025 (11 students), Spring 2026 (17 students)

GEOL 8060: Advanced Topics in Paleobiology

Fall 2001: Ordovician paleoceanography (2 students)

Fall 2003: Null models in paleobiology (2 students)

Spring 2004: Programming in C (2 students)

Spring 2006: Introduction to R (5 students)

GEOL 8080: Advanced Topics in Sedimentary Geology

Fall 2001: Sedimentology of Sapelo (8 students)

GEOL 8140: Sequence Stratigraphy

Fall 1999 (2 students), Fall 2001 (5 students), Fall 2003 (3 students), Fall 2005 (7 students), Fall 2008 (7 students), Fall 2010 (4 students), Fall 2012 (8 students), Fall 2014 (3 students), Fall 2016 (12 students), Fall 2018 (6 students), Fall 2020 (8 students), Fall 2022 (7 students), Fall 2024 (9 students)

GEOL 8370: Data Analysis in the Geosciences

Fall 2017 (25 students), Fall 2019 (23 students), Fall 2021 (25 students), Fall 2023 (24 students), Fall 2025 (21 students)

GRSC 7001: GradFIRST First-year Research and Scholarship Training Seminar

Fall 2022 (8 students), Fall 2023 (8 students), Fall 2024 (9 students), Fall 2025 (11 students)

HONS 1990H: Darwinism and Christianity

Spring 2002 (13 students)

GEOL 1122H: Earth's History of Global Change

Spring 2003 (22 students)

SCI 208H: Honors Science (co-taught)

Winter 1998 (17 students); Winter 1997 (40 students); Winter 1996 (29 students); Winter 1995 (29 students); Winter 1994 (31 students); Winter 1993 (24 students)

SCI 209H: Honors Science (co-taught)

Spring 1998 (11 students); Spring 1997 (35 students); Spring 1996 (26 students); Spring 1995 (25 students); Spring 1994 (28 students); Spring 1993 (21 students)

GLY 235H: Honors Field Geology Program (co-taught)

Summer 1992 (24 students)

GLY 126: Historical Geology

Spring 1991 (29 students); Fall 1991 (13 students)

GLY 405/605: Sedimentation and Stratigraphy

Winter 1998 (15 students); Winter 1997 (22 students); Winter 1996 (17 students); Winter 1995 (21 students); Winter 1994 (21 students); Winter 1993 (17 students); Winter 1992 (8 students)

GLY 427/627: Geology Field School, Cañon City, Colorado (co-taught)

Summer 1997 (22 students); Summer 1995 (18 students); Summer 1994 (15 students); Summer 1993 (23 students)

GLY 437/637: Geostatistics

Fall 1996 (8 students); Fall 1994 (11 students)

GLY 802K: Advanced Topics in Stratigraphy

Fall 1993 (5 students)

GLY 805: Advanced Stratigraphy

Fall 1997 (5 students); Fall 1995 (5 students); Fall 1992 (6 students)

GLY 825: Plate Tectonics (co-taught)

Fall 1997 (6 students); Fall 1996 (8 students); Fall 1995 (4 students); Fall 1994 (5 students); Fall 1993 (7 students); Fall 1992 (4 students); Fall 1991 (8 students)

POST-DOCTORAL FELLOWS

Katharine Loughney (2020–2022). Supported by a National Science Foundation Postdoctoral Fellowship.

Sylvia Danise (2015–2016). Supported by a Marie Curie Fellowship from The European Commission.

GRADUATE STUDENTS

Elise Bortell, M.S. expected Spring 2026. Research supported by the Society for Sedimentary Geology (SEPM).

Spencer Shroyer, M.S. expected Spring 2026. Research supported by the Society for Sedimentary Geology (SEPM).

Emily Jackson, M.S. Spring 2025. Research supported by the Society for Sedimentary Geology (SEPM).

Cade Orchard, M.S. Summer 2024. Thesis: Nonmarine stratigraphic architecture in response to transgression: a test in the Cretaceous Cloverly Formation of Wyoming. Research supported by the Society for Sedimentary Geology (SEPM), Paleontological Society, and the Tobacco Roots Geological Society.

Marjean Cone, M.S. Summer 2023. Thesis: Testing for climate and elevation controls on Pennsylvanian plant communities in valley fills of the Breathitt Group in eastern Kentucky. Research supported by the Geological Society of America and Society for Sedimentary Geology (SEPM).

Elliot Blake, M.S. Summer 2022. Thesis: Controls on the occurrence of vertebrate tracks in the Jurassic Gypsum Spring and Sundance Formations, Bighorn Basin, U.S.A. Research supported by the Paleontological Society and the Tobacco Roots Geological Society.

Max Deckman, M.S. Spring 2022. Thesis: A reinterpretation of the Triassic Crow Mountain and Popo Agie Formations as a distributive fluvial system, Wind River Basin, Wyoming. Research supported by the Wyoming Geologic Society and the Paleontological Society.

Samantha Khatri, M.S. Spring 2022. Thesis: Sequence-stratigraphic controls on the occurrence of dinosaur fossils in the Hell Creek Formation. Research supported by the Geological Society of America, Paleontological Society, and Society for Vertebrate Paleontology.

Anik Regan, M.S. Fall 2021. Thesis: Sequence-stratigraphic control on the nonmarine fossil record: a test in the Judith River Formation of north-central Montana. Research supported by the Geological Society of America, Paleontological Society, and Sigma Xi.

Sydney Lee, M.S. Spring 2020. Thesis: Testing two paleogeographic interpretations of the Jurassic of western North America.

- Garett Brown, Ph.D. Spring 2020. Dissertation: Beyond water depth: the environmental controls on marine benthic invertebrate assemblages in the modern and fossil record. Research supported by a Vitaliano Grant from the Indiana University Geology Field Station, Geological Society of America, and Tobacco Root Geological Society.
- Pedro Monarrez, Ph.D. Spring 2019. Dissertation: Testing the role of escalation on Jurassic macroevolutionary patterns. Research supported by the Paleontological Society.
- Matt Hess, M.S. Summer 2019. Thesis: Sequence-stratigraphic architecture and facies of the Middle to Upper Jurassic Preuss and Stump formations. Research supported by the Geological Society of America.
- Sierra Swenson, M.S. Summer 2019. Thesis: Integrated sequence stratigraphy and paleobiology of the Ellis Group of Montana: implications for the history and communities of the Sundance Seaway. Research supported by Tobacco Root Geological Society.
- Sarah Wright, M.S. December 2017. Thesis: The falling-stage progradation of an open-coast tidal flat: UAV-assisted sequence stratigraphy of the Jurassic Windy Hill Sandstone, Wyoming. Research supported by the Geological Society of America, American Association of Petroleum Geologists, Wyoming Geological Association, and Tobacco Root Geological Society.
- Bolton Howes, M.S. August 2017. Thesis: Sequence stratigraphic expression of flexural subsidence: Middle Jurassic Twin Creek Limestone, Wyoming, U.S.A. Research supported by the Geological Society of America.
- Annaka Clement, M.S. May 2015. Thesis: The sequence stratigraphy of the Middle Jurassic Gypsum Spring and Piper Formations in the eastern Bighorn Basin of Wyoming, U.S.A. Research supported by the Geological Society of America and the Society for Sedimentary Geology (SEPM).
- Kristopher Kusnerik, M.S. May 2015. Thesis: Community paleoecology and biogeography of the Jurassic (Bajocian–Oxfordian) Sundance Seaway in the Bighorn Basin of Wyoming and Montana, U.S.A. Research supported by the Geological Society of America and the Theodore Roosevelt Memorial Fund of the American Museum of Natural History.
- Chelsea Jenkins, M.S. May 2014. Thesis: Are biogeographic provinces discrete or gradational: a test in the Late Ordovician of Laurentia. Research supported by the Geological Society of America.
- Christopher Ginn, M.S. May 2014. Thesis: Sequence stratigraphy of the Silurian Clinch Formation, northeastern Tennessee and southwestern Virginia.
- Judi Sclafani, M.S. May 2013. Thesis: Testing the species-area relationship through Hubbell's theta in Late Ordovician marine communities of Laurentia. Research supported by the Geological Society of America, the Paleontological Society, the Theodore Roosevelt Memorial Fund of the American Museum of Natural History, and the Sigma Xi Grants-in-Aid of Research.
- Ally Platsky, M.S. August 2013. Thesis: The effect of eustatic period on changes in Hubbell's theta. Research supported by the Geological Society of America and the Theodore Roosevelt Memorial Fund of the American Museum of Natural History.
- Sharon McMullen, M.S. May 2012. Thesis: The occurrence of vertebrate and invertebrate fossils in a sequence stratigraphic context: The Jurassic Sundance Formation, Bighorn Basin, Wyoming, USA. Research supported by the Geological Society of America and the Paleontological Society.

- Max Christie, M.S. August 2011. Thesis: Contrasting the ecological and taxonomic intensity of extinction. Research supported by the Geological Society of America, the Paleontological Society, and the Theodore Roosevelt Memorial Fund of the American Museum of Natural History.
- Andrew Zaffos, M.S. August 2010. Thesis: Abundance and extinction at the Ordovician/Silurian boundary of the Cincinnati Arch, USA. Research supported by the Geological Society of America, the Paleontological Society, and the Theodore Roosevelt Memorial Fund of the American Museum of Natural History.
- Noel Heim, Ph.D. August 2008. Dissertation: The spatial structure of biodiversity in the fossil record: contrasting global, continental, and regional responses to climate change. Research supported by a STAR Fellowship from the U.S. Environmental Protection Agency, the Geological Society of America, and the Paleontological Society.
- Karen Layout, Ph.D. June 2007. Dissertation: Paleocommunity response to extinction: an example from the Late Ordovician (Mohawkian) of the Appalachian Basin of the eastern United States. Research supported by the Geological Society of America, the Paleontological Society, the Theodore Roosevelt Memorial Fund of the American Museum of Natural History, and the Sigma Xi Grants-in-Aid of Research.
- Jessica Allen, M.S. August 2003. Thesis: Facies and sequence stratigraphic analysis of the Harding Sandstone, Colorado. Research supported by the Geological Society of America, and the Colorado Scientific Society.
- Gayle Levy, M.S. June 2002. Thesis: Landmark analysis of the brachiopod *Sowerbyella rugosa*: a test of stasis. Research supported by the Paleontological Society, the Southeastern Section of the Geological Society of America, and the Sigma Xi Grants-in-Aid of Research.
- Daniel Hunter, M.S. May 2000. Thesis: Petrographic and geochemical evidence of subaerial exposure at temperate carbonate sequence boundaries, Upper Ordovician, Nashville Dome, Tennessee.
- Andrew Benson, M.S. March 1998. Thesis: Cause and regional extent of the mid-Ordovician positive $\delta^{13}\text{C}$ isotope excursion.
- Joshua Sternberg, M.S. June 1997. Thesis: Testing a Middle Ordovician sequence boundary for chronostratigraphic significance. Research supported by Geological Society of America.
- Alan Peoples, M.S. March 1997. Thesis: Application of the parasequence model to the Cretaceous Dakota Group in Cañon City, Colorado.
- John Jordan, M.S. March 1997. Thesis: Sequence stratigraphy of a carbonate–siliciclastic transition in the Upper Mississippian and Lower Pennsylvanian of the southern Appalachians. Research supported by Sigma Xi Grants-in-Aid of Research and the American Association of Petroleum Geologists.
- Polly Bouker, M.S. June 1996. Thesis: Using multivariate statistics to quantify tempestite proximity: Silurian Red Mountain Formation, Ringgold Gap, Georgia. Research supported by Sigma Xi Grants-in-Aid of Research.

UNDERGRADUATE RESEARCH

- Hailey Bos, May 2026. Sequence-stratigraphic architecture of the Claiborne Aquifer, southwest Georgia: implications for aquifer characteristics.
- Hailey Bos, May 2025. Using sandstone petrography to evaluate two subaerial unconformities in the Lower Cretaceous Cloverly Formation of the Bighorn Basin, Wyoming. Research presented at UGA's Center for Undergraduate Research Opportunitites (CURO) Spring Symposium, 2025.
- Sydney Shatz, May 2020. Tectonic provenance and source areas of the Jurassic Fernie Formation, southern Alberta.
- Michael (Skip) Sleister, May 2019. Tectonic provenance of the Jurassic Preuss and Stump Formations, Wyoming and Idaho.
- Jack Simmons, May 2017. Tectonic provenance and source areas of Jurassic sandstones, Wyoming.
- Austin Poncelet, May 2016. Paleoclimate indicators in Jurassic limestone, Wyoming.
- Sydne Workman, May 2015: Well-log correlations of the marine Jurassic, Bighorn Mountains to Black Hills.
- Jason Burwell, May 2015: Well-log correlations of the marine Jurassic, Bighorn Mountains to Idaho.
- Daniel Graybeal, May 2014: Jurassic paleogeography of western North America
- Rachel Cheatham, December 2012: Mississippian paleocommunities of Center Hill Lake, Tennessee
- Sean Cameron, May 2012: Sequence architecture and well-log analysis, Sundance Formation, Bighorn Basin, Wyoming
- Jordan Carney, May 2012: Bryozoan associations along the C5 onshore–offshore gradient, Cincinnati Arch, USA
- Leanne Hancock, May 2012: Bryozoan associations along the C5 onshore–offshore gradient, Cincinnati Arch, USA
- Morgan Rosenberg, May 2011: Bryozoans of the Bighorn Dolomite, Wyoming
- Jonathan Primm, May 2011: Bryozoan distribution along an onshore–offshore gradient, Cincinnati Series, Southern Indiana
- Kirk Fraley, May 2010. Depositional environments of cliff-forming Carboniferous sandstones in northwest Georgia
- Joshua Miller, May 2010. Well-log correlations in the Ordovician Bighorn Dolomite in Wyoming and portions of surrounding states
- David DuBose, May 2009. Well-log correlations and interpretations in the Sundance Formation, Bighorn Basin, Wyoming
- Eric Hogan, May 2008. Clay mineralogy of Pennsylvanian deltaic shales from the Breathitt Group, Flat Lick, Kentucky, USA
- Kathryn Hoffmeister, May 2008. Using paleoecology to interpret a deltaic sequence of the Breathitt Group at Flat Lick, eastern Kentucky, USA
- Tori Hanson, June 2003. Testing changes in preferred habitat within marine genera of the North American Ordovician

SERVICE

- 2022–present Parliamentarian, Department of Geology, University of Georgia
- 2021–present Director of Graduate Studies, Department of Geology, University of Georgia
- 2023–2025 University Program Review and Accreditation Committee.
- 2021–2023 University of Georgia, University promotion and tenure review committee
- 2020 NSF Proposal Review Panel, Division of Earth Sciences
- 2019–2024 Faculty Senate, Franklin College of Arts & Sciences, University of Georgia
- 2019–2024 Faculty mentor for Dr. Mattia Pistone, Department of Geology, University of Georgia
- 2018–2025 Board Member, Earth Life Consortium Foundation
- 2016–2018 University of Georgia, University-level promotion and tenure review committee
- 2016–2018 Past-President, Paleontological Society
- 2014–2016 President, Paleontological Society
- 2013–2014 Graduate Coordinator; Department of Geology, University of Georgia
- 2012–2014 President-Elect, Paleontological Society
- 2012–2016 Faculty mentor for Dr. Adam Milewski, Department of Geology, University of Georgia
- 2011–2012 Honorary Member Committee, Society for Sedimentary Geology (SEPM)
- 2010 Interview for WNEG-TV on the explosion of the Deepwater Horizon drilling platform and the subsequent oil spill
- 2010–2013 Paleontological Society, Student Poster Judge
- 2007–2011 Paleontological Society Medal Committee
- 2006–2012 Graduate Coordinator, Department of Geology, University of Georgia
- 2005–2012 Editor, Alumni Newsletter, Department of Geology, University of Georgia
- 2005–2011 Paleontological Society Fellows Committee
- 2005–2007 Councilor for Paleontology. Society for Sedimentary Geology (SEPM)
- 2005 Session Chair, Partitioning Taxa: Patches, Gradients, and Regions. Annual Meeting of Geological Society of America
- 2003–2006 Honors Advisory Board, University of Georgia
- 2003–2005 Franklin College Promotion and Tenure Committee, University of Georgia
- 2002–2003 Councilor-at-Large (under 40). Paleontological Society
- 2001–2002 Section representative for Paleontological Society to American Association for the Advancement of Science

- 2001 Co-organized Paleontological Society topical session on Stratigraphic Paleobiology with Mark Patzkowsky. Annual Meeting of Geological Society of America
- 1999–2006 Undergraduate Advisor, Department of Geology, University of Georgia
- 1999 Chair, Riverbend Relocation Committee, Department of Geology, University of Georgia
- 1998–2013 Associate Editor, *Palaios*
- 1998–2009 Computing Committee, Department of Geology, University of Georgia
- 1998–2002 Moore Medal Selection Committee, SEPM
- 1998–1999 Technical Program Committee, 1999 Southeastern Sectional Meeting of GSA in Athens, Georgia
- 1998–1999 Councilor, Southeastern Section SEPM
- 1998–1999 Admissions and Awards committee, Department of Geology, University of Georgia
- 1998 Organized symposium on Sequence Stratigraphic Applications to the Appalachians, Southeast GSA meeting, Charleston, West Virginia. Sponsored by the Southeast Section of SEPM and the Southeast Section of the Paleontological Society
- 1997–1998 President and Councilor-Elect, Southeastern Section SEPM
- 1996–1997 Vice President, Southeastern Section SEPM
- 1996–1997 Admissions and Awards committee, Department of Geology, University of Georgia
- 1995 Chair of the ad hoc Committee for Undergraduate Curriculum Revisions, Department of Geology, University of Georgia
- 1992–present Advisory Committees for graduate students
- 1992–present Proposal reviewer for National Science Foundation, American Chemical Society Petroleum Research Fund, Research Council of Norway, National Geographic Society, Natural Sciences and Engineering Research Council of Canada.
- 1992–present Manuscript reviewer for *Nature*, *Science*, *Proceedings of the National Academy of Science (USA)*, *Proceedings of the Royal Society*, *Alcheringa*, *American Association of Petroleum Geology Bulletin*, *Biological Journal of the Linnean Society*, *Bollettino della Società Paleontologica Italiana*, *Columbia University Press*, *Cretaceous Research*, *Current Biology*, *Depositional Record*, *Earth and Planetary Science Letters*, *Ecology Letters*, *EGUSphere*, *Facies*, *Geological Society of America Bulletin*, *Geology*, *Geophysical Research Letters*, *Global Ecology and Biogeography*, *Groundwater Monitoring & Remediation*, *Journal of Foraminiferal Research*, *Journal of Geology*, *Journal of Geophysical Research*, *Journal of Sedimentary Research*, *Journal of the Geological Society (London)*, *Lethaia*, *Methods in Ecology and Evolution*, *Nature Geoscience*, *Palaeogeography-Palaeoclimatology-Palaeoecology*, *Palaios*, *Paleobiology*, *PLoS One*, *Scientific Reports*, *Sedimentary Geology*, *Sedimentology*, *SEPM Special Publications*, *Trends in Research in Ecology and Evolution*
- 1992–1995 Graduate Curriculum Committee; Geology Department, University of Georgia

- 1992–1995 Georgia reporter for the Gulf Coast Section of the Society of Economic Paleontologists and Mineralogists
- 1992–1993 Search Committee: Paleontology; Geology Department, University of Georgia
- 1992 Search Committee: Hydrology, Structure, Paleontology; Geology Department, University of Georgia
- 1992 Computer Liaison Committee, Geology Department, University of Georgia

GRANTS

- 2024-2025 National Science Foundation: collaborative research: conference: stratigraphic paleobiology field conference. EAR-2321173. Total award: \$49,111. University of Georgia award: \$15,266.
- 2013 University of Georgia Provost 's Summer Research Grant. Reinterpreting the tempo of an ancient mass extinction using sequence stratigraphy. \$5,000
- 2012 University of Georgia Provost 's Summer Research Grant. Enhanced discovery of rare marine vertebrate fossils using sequence stratigraphy \$5,000
- 2010–2014 National Science Foundation: Testing a neutral model for the biotic effects of sea-level change. EAR-0948895. \$147,885
- 2009–2010 National Geographic Society: The ecological and sedimentary response of an equatorial marine system to Late Ordovician climate change. \$12,300
- 2008 University of Georgia President's Venture Fund. Funding to participate in the Cocoa Bootcamp, an OS X programming course offered by the Big Nerd Ranch. \$2,500, with \$500 matching from the UGA Department of Geology
- 2002–2005 National Science Foundation: REU Supplement to Diversity partitioning during a marine biotic invasion: Middle and Late Ordovician, Cincinnati Arch and Nashville Dome. EAR-0087055. \$11,500
- 2001–2005 National Science Foundation: Diversity partitioning during a marine biotic invasion: Middle and Late Ordovician, Cincinnati Arch and Nashville Dome. Collaborative research with Mark E. Patzkowsky of Pennsylvania State University. EAR-0087055. Total award: \$110,000. University of Georgia award: \$55,000
- 1999–2000 National Science Foundation SGER: Hurricane effects on beach-to-reef facies. Co-PI with Sally E. Walker; University of Georgia. EAR-0000894. Total award: \$12,366
- 1997–2001 National Science Foundation: Modeling the biostratigraphic effects of facies control, depositional sequences, and sampling intensity. Collaborative research with Mark E. Patzkowsky of Pennsylvania State University. EAR-9705732. Total award: \$100,000; University of Georgia award: \$35,965
- 1993–1995 Petroleum Research Fund Class G Grant, American Chemical Society: Sequence stratigraphy of the Middle and Upper Ordovician of the Nashville Dome, Tennessee. 26381-G8. Total award: \$20,000

- 1992–1994 National Science Foundation: High-resolution event stratigraphy of the Kope–Corryville interval in the type Cincinnati. Collaborative Research with Arnold I. Miller and David L. Meyer of the University of Cincinnati. EAR-9204445. Total award: \$175,000; University of Georgia award: \$17,800
- 1985–1988 National Science Foundation Graduate Fellowship
- 1988 Geological Society of America Research Grant
- 1988 Sigma Xi Grant-in-Aid of Research
- 1987 Geological Society of America Research Grant

GROUP RESEARCH INITIATIVES

- 2013–2020 Advisory Board, The Paleobiology Database
- 2005–2006 Steering Committee, The Paleobiology Database
- 2003 Participant in workshop, New Directions in Sedimentary Geology, sponsored by the National Science Foundation
- 2001–2004 Advisory Board, The Paleobiology Database
- 1998–2000 Participant, A Sampling-Standardized Analysis of Phanerozoic Marine Diversification and Extinction, sponsored by the National Center for Ecological Analysis and Synthesis
- 1999 Participant in workshop, Geobiology and the Earth Sciences in the Next Decade, sponsored by the National Science Foundation
- 1998–2005 Associate Member, Penn State Astrobiology Research Center

PRINCIPAL FIELD EXPERIENCE

- 2021–2024 Sequence stratigraphy of nonmarine settings. Triassic Chugwater Formation, Wyoming; Cretaceous Cloverly Formation, Wyoming; Cretaceous Judith River Formation, Montana; and Cretaceous Hell Creek Formation, North Dakota. Five weeks.
- 2022 Stratigraphic architecture of Miocene Stewart Valley Group, Nevada; Pennsylvanian Breathitt Group, Kentucky; and Ordovician Ellis Bay Formation, Anticosti Island, Quebec. Three weeks.
- 2012–2021 Sequence stratigraphy and paleoecology of the marine Jurassic of the western United States and Canada. Gypsum Spring, Sundance, Swift, and Fernie Formations. Thirteen weeks.
- 2011–2015 Paleozoic sequence stratigraphy and stratigraphic paleobiology. Tobacco Root Mountains, Montana. Six weeks.
- 2013 Sequence stratigraphy of the Ordovician/Silurian boundary interval, Nevada. One week.

- 2006–2010 Sequence stratigraphy and paleoecology of the Upper Ordovician of Wyoming. Ten weeks.
- 2000–2004 Sequence stratigraphy and biofacies of the Upper Ordovician of the Cincinnati Arch of Ohio, Indiana, and Kentucky. Nine weeks.
- 2000 Geologic effects of Hurricane Floyd, San Salvador, The Bahamas. Two weeks.
- 1999 Ordovician stratigraphy and paleontology, southern Appalachians and Missouri. Two weeks.
- 1992–1997 Sequence stratigraphy and biofacies of the Upper Ordovician of the Nashville Dome. Four months.
- 1995 Sequence stratigraphy of a lowstand bypass channel in the Mancos Shale; Book Cliffs, Utah. One week.
- 1992–1993 Parasequence stratigraphy and event bed correlation in the Upper Ordovician Kope and Fairview Formations of the Cincinnati, Ohio area. Two months.
- 1987–1989 Sequence stratigraphy and foreland basin evolution of the Middle and Upper Ordovician of the Cincinnati Arch and central Appalachian Basin. 7 months.
- 1989 Holocene shell beds and stratigraphy of the Texas continental shelf. R/V Gyre. 3 weeks.
- 1985 Archeological field survey and excavations in Great Miami River Valley, Southwestern Ohio. 3 months.

RESEARCH IMPACT

Google Scholar, 2 May 2026

Citations: 7966

h-index: 42

i10-index: 86

papers with 200+ citations: 10

papers with 100+ citations: 21

PUBLICATIONS

*Peer-Reviewed Journals and Volumes (*invited)*

Loughney, K.M., and S.M. Holland. 2026. Simulations of nonmarine extensional basins and their fossil record. *Palaios* 41:91–108.

Holland, S.M., and S.C.R. Maidment. 2026. Detecting ecological structure in dinosaur assemblages of the Upper Jurassic Morrison Formation, western United States: challenges and realities. In J. Foster, K. Trujillo, R. Hunt-Foster, and S. Lucas (Editors). *New Developments in the Paleontology and Geology of the Upper Jurassic Morrison Formation*. New Mexico Museum of Natural History and Science Bulletin 102:41–51.

- * Holland, S.M., M.E. Patzkowsky, and K.M. Loughney. 2025. Stratigraphic paleobiology. *Paleobiology* 51:1–18. *50th anniversary issue*.
- Deckman, M.E., D.M. Lovelace, and S.M. Holland. 2024. A reinterpretation of the Jelm and Popo Agie formations (Triassic, Wyoming) as a distributive fluvial system (DFS) and the role of the accommodation/sedimentation ratio in DFS deposition. *The Mountain Geologist* 61:219–248.
- Holland, S.M., C.J. Orchard, and K. M. Loughney. 2024. The paleobiologic implications of modern nonmarine ecological gradients. *Paleobiology* 50:408–423. *Featured Article*
- Loveless, S.R., C. Klimczak, L.R. McCullough, K.T. Crane, S.M. Holland, and P.K. Byrne. 2024. A statistical evaluation of the morphological variability of shortening landforms on Mercury. *Icarus* 416:116106.
- Zimmt, J., S.M. Holland, A. Desrochers, D. Jones, and S. Finnegan. 2024. A high-resolution sequence stratigraphic framework for the eastern Ellis Bay Formation, Canada: A record of Hirnantian sea-level change. *GSA Bulletin* 136:3825–3849.
- Davidson, L.J., A. M. Milewski, and S.M. Holland. 2023. Quantifying intermittent flow regimes in ungauged basins: optimization of remote sensing techniques for ephemeral channels using a flexible statistical classification. *Remote Sensing* 15:5672.
- Loughney, K.M., and S.M. Holland. 2023. The eight architectural zones of nonmarine basins. *Geosphere*: 19. doi: <https://doi.org/10.1130/GES02566.1>.
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- Holland, S.M., K.M. Loughney, and M. Cone. 2023. Preferential preservation of low-elevation biotas in the nonmarine fossil record. *Geology* 51:111–114.
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- Regan, A.K., R.R. Rogers, and S.M. Holland. 2022. Quantifying controls on the occurrence of nonmarine fossils. *Geology* 40:1287–1290. *cover photograph for issue*
- Holland, S.M., and A.K. Regan. 2020. A new, more accurate, and easier to use Jacob's Staff. *Journal of Sedimentary Research* 90: 669–672. *cover photograph for issue*
- Holland, S.M., and S.N. Wright. 2020. The unconformity that isn't: a sequence-stratigraphic reinterpretation of the J-5 unconformity and the Redwater–Windy Hill–Morrison transition in Wyoming, U.S.A. *Journal of Geology* 128: 247–274.
- * Holland, S.M. 2020. The stratigraphy of mass extinctions and recoveries. *Annual Reviews of Earth and Planetary Sciences* 48: 75–97.
- Danise, S, G.D. Price, M. Alberti, and S.M. Holland. 2020. Isotopic evidence for partial geochemical decoupling between a Jurassic epicontinental sea and the open ocean. *Gondwana Research* 82: 97–107.
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- Railsback, L.B., K.M. Layou, N.A. Heim, S.M. Holland, M.L. Trogdon, M.B. Jarrett, G.M. Izsak, D.E. Bulger, E.J. Wysong, K.J. Trubee, J.M. Fiser, J.E. Cox, and D.E. Crowe. 2012. Geochemical evidence for meteoric diagenesis and cryptic surfaces of subaerial exposure in Upper Ordovician peritidal carbonates from the Nashville Dome, central Tennessee, U.S.A. *In* S. Morad, M. Ketzer, and L.F. de Ros, eds., *Linking Diagenesis to Sequence Stratigraphy*. IAS Special Publication 45: 257–270.

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Books

- Holland, S.M., and K.M. Loughney. 2021. *The Stratigraphic Paleobiology of Nonmarine Systems. Elements of Paleontology*. Cambridge University Press, Cambridge, 80 p.
- Patzkowsky, M.E., and S.M. Holland. 2012. *Stratigraphic Paleobiology: Understanding the Distribution of Fossil Taxa in Time and Space*. The University of Chicago Press, Chicago, 256 p.

Edited Books

- McLaughlin, P.I., C.E. Brett, S.M. Holland, and G.W. Storrs, eds. 2008. *Stratigraphic Renaissance in the Cincinnati Arch: Implications for Upper Ordovician Paleontology and Paleoecology*. Cincinnati Museum Center Scientific Contributions No. 2, Cincinnati, Ohio, 280 p.

Book Chapters

- Holland, S.M. 2009. Paleogeography and paleoenvironment, in D.L. Meyer and R.A. Davis, *A Sea without Fish*, Indiana University Press, Bloomington: 214–226.
- Holland, S.M. 2001. Fossils in sequence stratigraphy, in D.E.G. Briggs and P.R. Crowther, eds., *Palaeobiology II*, Blackwell: 548–553.
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Invited Commentaries

- Holland, S.M. 2025. Macroevolution: marine biomass and diversity through deep time. *Current Biology* 35:PR757-R759.
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- Holland, S.M. 2007. Coupling of predation intensity and global diversity over geologic time. *Proceedings of the National Academy of Sciences* 104: 14885–14886.

Field Trip Guidebooks

- Allen, J.A., M.S. Duncan, and S.M. Holland. 2009. Late Eocene sequence stratigraphy of the upper Coastal Plain, Georgia. In M.S. Duncan and R.L. Kath, *Fall line geology of east Georgia: with a special emphasis on the Upper Eocene*. Georgia Geological Society Guidebook 29: 17–24.
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I have also developed several iOS applications through my business (Hunt Mountain Software), including Mancos, Strike and Dip, Coordinates, DeepTime, and Jake for Stratigraphy. These are independent efforts not associated with the University of Georgia or my appointment in the Geology Department.

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