

STEVEN M. HOLLAND
PROFESSOR

ADDRESS

Department of Geology
The University of Georgia
Athens, Georgia 30602-2501

(706)-542-0424–office
(706)-542-2438–lab
(706)-542-2425–fax
(706)-613-9745–home

stratum@uga.edu

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
- 1988 Teaching Assistant for David Jablonski, Biological Evolution
- 1987 Research Assistant for Susan Kidwell, computer modeling of sedimentary cyclicity
- 1984 Archaeological Assistant to Wes Cowan, Cincinnati Museum of Natural History, Ohio
- 1983 Technical Advisor, Exhibits Department, Cincinnati Museum of Natural History, Ohio
- 1981–1985 Volunteer Curator of Paleontology, Cincinnati Museum of Natural History, Ohio

ADDITIONAL EDUCATION

- 1989 Geological Society of America Short Course: Geological Applications of Hypercard
- 1989 AAPG School: Well Log Analysis
- 1988 School of Oceanography, University of Washington, Seattle, Washington. Visiting Graduate Student. Directed readings in sediment transport and coastal oceanography
- 1987 Geological Society of America Short Course: Quantitative Sedimentary Basin Modeling
- 1987 Geological Society of America Short Course: Current Aspects of Basin Analysis and Sedimentary Geology
- 1986 Friday Harbor Laboratories, University of Washington, Friday Harbor, Washington. Course: Dynamics at the sediment-water interface
- 1984 Miami University, Oxford, Ohio. Field Camp in Wind River Basin, Wyoming. 4 week mapping and sedimentary geology course

PROFESSIONAL SOCIETIES

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

AWARDS & HONORS

- 2023 Exceptional Reviewer, Geological Society of America Bulletin
- 2022 Best paper in *Palaeontology* 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 *Palaeontology* 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
- 1990–1991 Battelle Postdoctoral Fellowship, Ohio State University
- 1985–1989 Century Fellowship, Division of Physical Sciences, The University of Chicago
- 1985–1988 National Science Foundation Graduate Fellowship
- 1985 Phi Beta Kappa
- 1984 National Association of Geology Teachers Field School Scholarship
- 1981–1985 Vorheis full tuition scholarship, University of Cincinnati; Walter & Kathryn Cook Scholarship, Department of Geology, University of Cincinnati; Ohio Board of Regents Scholarship

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 Course in Stratigraphic Paleobiology

Two-week field course for graduate students, sponsored by the Paleontological Society, and located in the Tobacco Root Mountains and Missouri Breaks of Montana. Co-taught with Mark Patzkowsky. Summer 2014, Summer 2017.

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)

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)

GEOL 8370: Data Analysis in the Geosciences

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

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

Fall 2022 (8 students), Fall 2023 (8 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

Emily Jackson, M.S. expected Spring 2025.

Cade Orchard, M.S. expected Spring 2024. 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 Layou, 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 THESES

- 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 University of Georgia, University promotion and tenure review committee
- 2020 NSF Proposal Review Panel, Division of Earth Sciences
- 2019–present Faculty Senate, Franklin College of Arts & Sciences, University of Georgia
- 2019–present Faculty mentor for Dr. Mattia Pistone, Department of Geology, University of Georgia
- 2018–present 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*, *Depositional Record*, *Earth and Planetary Science Letters*, *Ecology Letters*, *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 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 National Center for Ecological Analysis and Synthesis
1999	Participant in workshop, Geobiology and the Earth Sciences in the Next Decade, sponsored by National Science Foundation
1998–2005	Associate Member, Penn State Astrobiology Research Center

PRINCIPAL FIELD EXPERIENCE

2022	Stratigraphic architecture of Miocene Stewart Valley Group, Nevada; Pennsylvanian Breathitt Group, Kentucky; and Ordovician Ellis Bay Formation, Anticosti Island, Quebec. Three weeks.
2021	Sequence stratigraphy of nonmarine settings. Triassic Chugwater Formation, Wyoming; Cretaceous Judith River Formation, Montana; and Cretaceous Hell Creek Formation, North Dakota. 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, 28 March 2024

Citations: 6968

h-index: 40

i10-index: 80

papers with over 200 citations: 10

papers with over 100 citations: 18

PUBLICATIONS

Peer-Reviewed Journals and Volumes

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*. doi:10.1130/B37190.1.

Holland, S.M., M.E. Patzkowsky, and K.M. Loughney, 2024. Stratigraphic paleobiology. 50th anniversary issue of *Paleobiology*. 1–18. doi:10.1017/pab.2024.2. *invited paper*

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>.

Holland, S.M., 2023. The contrasting controls on the occurrence of fossils in marine and nonmarine systems. *Bollettino della Società Paleontologica Italiana* 62:1–25. *invited paper*

- 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.
- Holland, S.M., 2022. The structure of the nonmarine fossil record: predictions from a coupled stratigraphic–paleoecological model of a coastal basin. *Paleobiology* 48: 372–396.
- 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. *invited paper*
- 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.
- Zimmt, J.B., S.M. Holland, S. Finnegan, and C.R. Marshall, 2020. Recognizing pulses of extinction from clusters of last occurrences. *Palaeontology* 64: 1–20. doi:10.1111/pala.12505.
- Holland, S.M., 2019. Estimation, not significance. *Paleobiology* 45: 1–6.
- Holland, S.M., 2018. Diversity and tectonics: predictions from neutral theory. *Paleobiology* 59: 219–236.
- Holland, S.M., and S. Danise, 2018. A sequence-stratigraphic appraisal of the lithostratigraphy of the Sundance Formation, Wyoming USA. Wyoming Geological Association Field Conference.
- Danise, S., and S.M. Holland, 2018. A sequence stratigraphic framework for the Middle to Late Jurassic of the Sundance Seaway, Wyoming: implications for correlation, basin evolution, and climate change. *Journal of Geology* 126: 371–405.
- Monarrez, P.M., M. Aberhan, and S.M. Holland, 2017. Regional and environmental variation in escalatory ecological trends during the Jurassic: a western Tethys hot spot for escalation? *Paleobiology* 43: 569–586.
- Danise, S., and S.M. Holland, 2017. Faunal response to sea-level and climate change in a short-lived seaway: Jurassic of the western interior, U.S.A. *Palaeontology* 60: 213–232.
- Clement, A.C., and S.M. Holland. 2016. Sequence stratigraphic context of extensive evaporites: Middle Jurassic Gypsum Spring Formation, Wyoming, U.S.A. *Journal of Sedimentary Research* 86: 965–981.
- Patzkowsky, M.E., and S.M. Holland. 2016. Biotic invasion, niche conservatism, and the assembly of regional biotas in deep time: comparison of donor and recipient regions. *Paleobiology* 58: 359–379.
- Jenkins, C.E., and S.M. Holland. 2016. Continental-scale biogeographic variation: provinces versus gradients in the Upper Ordovician of Laurentia. *Paleobiology* 58: 410–425.
- Holland, S.M. 2016. The non-uniformity of the fossil record. *Philosophical Transactions of the Royal Society B, Biological Sciences* 371, no. 20150130. doi: 10.1098/rstb.2015.0130.

- Holland, S.M., and M.E. Patzkowsky. 2015. The stratigraphy of mass extinction. *Palaeontology* 58: 903–924. *Awarded best paper in Palaeontology for 2015.*
- Holland, S.M., and J. Sclafani. 2015. Phanerozoic diversity and neutral theory. *Paleobiology* 41: 369–376.
- McMullen, S.K., S.M. Holland, and F.R. O’Keefe. 2014. The occurrence of vertebrate and invertebrate fossils in a sequence stratigraphic context: the Jurassic Sundance Formation, Bighorn Basin, Wyoming, USA. *Palaios* 29: 277–294.
- Christie, M., S.M. Holland, and A.M. Bush, 2013. Contrasting the ecological taxonomic consequences of extinction. *Paleobiology* 39: 538–559.
- Holland, S.M., and M. Christie, 2013. Changes in area of shallow siliciclastic marine habitat in response to sediment deposition: implications for onshore–offshore paleobiologic patterns. *Paleobiology* 39: 511–524. *Featured Article for the Fall 2013 Issue.*
- Holland, S.M., 2013. Relaxation time and the problem of the Pleistocene. *Diversity* 5: 276–292.
- Sclafani, J.A., and S.M. Holland, 2013. The species–area relationship in the Late Ordovician: a test using neutral theory. *Diversity* 5: 240–262.
- 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.
- Holland, S.M., 2012. Sea-level change and the area of shallow marine habitat: Implications for marine biodiversity. *Paleobiology* 38: 205–217.
- Holland, S.M., and M.E. Patzkowsky, 2012. Sequence architecture of the Bighorn Dolomite, Wyoming, USA: transition to the Late Ordovician icehouse. *Journal of Sedimentary Research* 82: 599–615.
- Hoffmeister, K.E., E.G. Hogan, and S.M. Holland, S.M., 2012. Depositional environments and sequences stratigraphy of a Breathitt Group exposure, U.S. Highway 25E, Flat Lick, Kentucky. Kentucky Geological Survey Information Circular 24.
- Zaffos, A., and S.M. Holland, 2012. Abundance and extinction in Ordovician–Silurian brachiopods, Cincinnati Arch, Ohio and Kentucky. *Paleobiology* 38: 278–291.
- Holland, S.M., and A. Zaffos, 2011. Niche conservatism along an onshore–offshore gradient. *Paleobiology* 37: 270–286.
- Holland, S.M., 2010. Additive diversity partitioning in paleobiology: revisiting Sepkoski’s question. *Palaeontology* 53: 1237–1254.
- Holland, S.M., and M.E. Patzkowsky, 2009. The stratigraphic distribution of fossils in a tropical carbonate succession: Ordovician Bighorn Dolomite, Wyoming, USA. *Palaios* 24: 303–317.
- Pope, M.C., S.M. Holland, and M.E. Patzkowsky, 2009. The Cincinnati Arch: a stationary peripheral bulge during the Late Ordovician. *In* Perspectives in P.K. Swart, G.P. Eberli, and J.A. Mcenzie, eds., *Carbonate Geology: A Tribute to the Career of Robert Nathan Ginsburg*, IAS Special Publication 41: 255–275.
- Brett, C.E., S.M. Holland, P.I. McLaughlin, and A.I. Miller, 2008. Preface: “Stratigraphic Renaissance” in the study of the Upper Ordovician of the Cincinnati Arch: New approaches utilizing sequence, cycle and event stratigraphy, paleoecology and paleobiology. *In* P.I. McLaughlin, C.E. Brett, S.M.

- Holland, and G.W. Storrs, eds., Stratigraphic Renaissance in the Cincinnati Arch: Implications for Upper Ordovician Paleontology and Paleocology, Cincinnati Museum Center Scientific Contributions No. 2: 1–5.
- McLaughlin, P.I., C.E. Brett, S.T. McLaughlin, and S.M. Holland, 2008. Upper Ordovician (Chatfieldian–Edenian) strata from central Kentucky to southern Ohio: facies gradients, event beds, and depositional sequences. *In* P.I. McLaughlin, C.E. Brett, S.M. Holland, and G.W. Storrs, eds., Stratigraphic Renaissance in the Cincinnati Arch: Implications for Upper Ordovician Paleontology and Paleocology, Cincinnati Museum Center Scientific Contributions No. 2: 8–37.
- Holland, S.M., and A.I. Miller, 2008. Biofacies and sequence stratigraphic architecture of the C1 sequence (Kope and lowermost Fairview Formations), Cincinnati, Ohio area. *In* P.I. McLaughlin, C.E. Brett, S.M. Holland, and G.W. Storrs, eds., Stratigraphic Renaissance in the Cincinnati Arch: Implications for Upper Ordovician Paleontology and Paleocology, Cincinnati Museum Center Scientific Contributions No. 2: 44–57.
- Holland, S.M., 2008. Climate-driven storm cyclicality: A non-eustatic mechanism for generating offshore meter-scale cycles. *In* P.I. McLaughlin, C.E. Brett, S.M. Holland, and G.W. Storrs, eds., Stratigraphic Renaissance in the Cincinnati Arch: Implications for Upper Ordovician Paleontology and Paleocology, Cincinnati Museum Center Scientific Contributions No. 2: 166–173.
- Holland, S.M., 2008. The type Cincinnati Series: An overview. *In* P.I. McLaughlin, C.E. Brett, S.M. Holland, and G.W. Storrs, eds., Stratigraphic Renaissance in the Cincinnati Arch: Implications for Upper Ordovician Paleontology and Paleocology, Cincinnati Museum Center Scientific Contributions No. 2: 174–184.
- Alroy, J., M. Aberhan, D.J. Bottjer, M. Foote, F.T. Fürsich, P.J. Harries, A.J.W. Hendy, S.M. Holland, L.C. Ivany, W. Kiessling, M.A. Kosnik, C.R. Marshall, A.J. McGowan, A.I. Miller, T.D. Olszewski, M.E. Patzkowsky, S.E. Peters, L. Villier, P.J. Wagner, N. Bonuso, P.S. Borkow, B. Brenneis, M.E. Clapham, L.M. Fall, C.A. Ferguson, V.L. Hanson, A.Z. Krug, K.M. Layou, E.H. Leckey, S. Nürnberg, C.M. Powers, J.A. Sessa, C. Simpson, A. Tomašových, C.C. Visaggi, 2008. Phanerozoic trends in the global diversity of marine invertebrates. *Science* 321: 97–100.
- Holland, S.M., and M.E. Patzkowsky, 2007. Gradient ecology of a biotic invasion: biofacies of the type Cincinnati Series (Upper Ordovician), Cincinnati, Ohio region, USA. *Palaios* 22: 392–407.
- Patzkowsky, M.E., and S.M. Holland, 2007. Diversity partitioning of a Late Ordovician marine biotic invasion: controls on diversity in regional ecosystems. *Paleobiology* 33: 295–309.
- Theiling, B.P., L.B. Railsback, S.M. Holland, and D.E. Crowe, 2007. Heterogeneity in geochemical expression of subaerial exposure in limestones, and its implications for sampling to detect exposure surfaces. *Journal of Sedimentary Research* 77: 159–169.
- Holland, S.M., A.I. Miller, D.L. Meyer, B.F. Dattilo, and S.C. St. Louis Diekmeyer, 2006. Stratigraphic column of the Kope and Fairview Formations, Kentucky 445, Brent, Kentucky. Kentucky Geological Survey Map & Chart 92, Series XII.
- Allulee, J.L., and S.M. Holland, 2005. The sequence stratigraphic and environmental context of primitive vertebrates: Harding Sandstone, Upper Ordovician, Colorado, USA. *Palaios* 20: 518–533.
- Holland, S.M., 2005. The signatures of patches and gradients in ecological ordinations. *Palaios* 20: 573–580.

- Holland, S.M., and M.E. Patzkowsky, 2004. Ecosystem structure and stability: middle Upper Ordovician of central Kentucky, USA. *Palaios* 19: 316–331.
- Harris, R.S., M.F. Roden, P.A. Schroeder, S.M. Holland, M.S. Duncan, and E.F. Albin, 2004. An upper Eocene impact horizon in east-central Georgia. *Geology* 32: 717–720.
- Railsback, L.B., S.M. Holland, D.L. Hunter, M. Jordan, J. Diaz, and D.E. Crowe, 2003. Controls on geochemical expression of subaerial exposure in Ordovician limestones from the Nashville Dome, Tennessee, U.S.A. *Journal of Sedimentary Research* 73: 790–805.
- Holland, S.M., 2003. BIOSTRAT: a program for simulating the stratigraphic occurrence of fossils. *Computers & Geosciences* 29: 1119–1125.
- Patzkowsky, M.E., and S.M. Holland, 2003. Lack of saturation in ecological communities at the beginning of the Paleozoic plateau: the dominance of regional over local processes. *Paleobiology* 29: 545–560.
- Holland, S.M., 2003. Confidence limits on fossil ranges that account for facies changes. *Paleobiology* 29: 468–479.
- Herrmann, A.D., M.E. Patzkowsky and S.M. Holland, 2003. BIOMODULE: a Java program to help model and interpret the stratigraphic record. *Computers & Geosciences* 29: 99–105.
- Walker, S.E., S.M. Holland, and L. Gardiner, 2003. *Coenobichnus currani* (new ichnogenus and ichnospecies): fossil trackway of a land hermit crab, Early Holocene, San Salvador, Bahamas. *Journal of Paleontology* 77: 576–582.
- Kidwell, S.K., and S.M. Holland, 2002. The quality of the fossil record: implications for evolutionary analyses. *Annual Reviews of Ecology and Systematics* 33: 561–588.
- Meyer, D.L., A.I. Miller, S.M. Holland, and B.F. Dattilo, 2002. Crinoid distribution and feeding morphology through a depositional sequence: Kope and Fairview Formations, Upper Ordovician, Cincinnati Arch region. *Journal of Paleontology* 76: 725–732.
- Holland, S.M., and M.E. Patzkowsky, 2002. Stratigraphic variation in the timing of first and last occurrences. *Palaios* 17: 134–146.
- Miller, A.I., S.M. Holland, D.L. Meyer, and B.F. Dattilo, 2001. The use of faunal gradient analysis for intraregional correlation and assessment of sea-floor topography in the type Cincinnati. *Journal of Geology* 109: 603–614.
- Holland, S.M., A.I. Miller, D.L. Meyer, and B.F. Dattilo, 2001. The detection and importance of subtle biofacies in monotonous lithofacies: the Upper Ordovician Kope Formation of the Cincinnati, Ohio region. *Palaios* 16: 205–217.
- Walker, S.E., S.M. Holland, and L. Gardiner, 2001. Cockburn Town fossil reef: A summary of effects from Hurricane Floyd. In B.J. Greenstein and C.K. Carney, eds., *Proceedings of the 10th Symposium on the Geology of the Bahamas and Other Carbonate Regions*. Gerace Research Center: San Salvador, the Bahamas: 13–19.
- Alroy, J., C.R. Marshall, R.K. Bambach, K. Bezusko, D. Carlson, M. Foote, F.T. Fürsich, T.A. Hansen, S.M. Holland, L.C. Ivany, D. Jablonski, D.K. Jacobs, M.A. Kosnik, S. Lidgard, S. Low, A.I. Miller, P.M. Novack-Gottshall, T. Olszewski, M.E. Patzkowsky, D.M. Raup, K. Roy, J.J. Sepkoski, Jr., M.G. Sommers, P.J. Wagner, III, and A. Webber, 2001. Effects of sampling standardization on estimates of Phanerozoic marine diversification. *Proceedings of the National Academy of Sciences* 98: 6261–6266.

- Holland, S.M., 2000. The quality of the fossil record: a sequence stratigraphic perspective. *In* D.H. Erwin and S.L. Wing, eds., *Deep Time: Paleobiology's Perspective*. Lawrence, Kansas: The Paleontological Society: 148–168.
- Holland, S.M., D.L. Meyer, and A.I. Miller, 2000. High-resolution correlation in apparently monotonous rocks: Upper Ordovician Kope Formation, Cincinnati Arch. *Palaios* 15: 73–80.
- Holland, S.M., 1999. The New Stratigraphy and its promise for paleobiology. *Paleobiology* 25: 409–416.
- Patzkowsky, M.E., and S.M. Holland, 1999. Biofacies replacement in a sequence stratigraphic framework: Middle and Upper Ordovician of the Nashville Dome, Tennessee, USA. *Palaios* 14: 301–323.
- Holland, S.M., and M.E. Patzkowsky, 1999. Models for simulating the fossil record. *Geology* 27: 491–494.
- Holland, S.M., and M.E. Patzkowsky, 1998. Sequence stratigraphy and relative sea-level history of the Middle and Upper Ordovician of the Nashville Dome, Tennessee. *Journal of Sedimentary Research* 68: 684–699.
- Miller, A.I., S.M. Holland, B.F. Dattilo, D.L. Meyer, 1997. Stratigraphic resolution and perceptions of cycle architecture: variations in meter-scale cyclicity in the type Cincinnati Series. *Journal of Geology* 105: 737–743.
- Patzkowsky, M.E., and S.M. Holland, 1997. Patterns of turnover in Middle and Upper Ordovician brachiopods of the eastern United States: a test of coordinated stasis. *Paleobiology* 23: 420–443.
- Holland, S.M., A.I. Miller, D.L. Meyer, B.F. Dattilo, and S. Diekmeyer, 1997. Cycle anatomy and variability in the storm-dominated type Cincinnati (Upper Ordovician): Coming to grips with cycle delineation and genesis. *Journal of Geology* 105: 135–152.
- Holland, S.M., and M.E. Patzkowsky, 1997. Distal orogenic effects on peripheral bulge sedimentation: Middle and Upper Ordovician of the Nashville Dome. *Journal of Sedimentary Research* 67: 250–263.
- Holland, S.M., 1997. Recognizing artifactually generated coordinated stasis: implications of numerical models and strategies for field tests. *Palaeogeography, Palaeoclimatology, Palaeoecology* 127: 147–156
- Holland, S.M., and M.E. Patzkowsky, 1996. Sequence stratigraphy and long-term paleoceanographic change in the Middle and Upper Ordovician of the eastern United States. *In* B.J. Witzke, G.A. Ludvigsen, and J.E. Day (eds.). *Paleozoic sequence stratigraphy: Views from the North American craton*. Geological Society of America Special Paper 306: 117–130.
- Patzkowsky, M.E., and S.M. Holland, 1996. Extinction, invasion, and sequence stratigraphy: patterns of faunal change in the Middle and Upper Ordovician of the eastern United States. *In* B.J. Witzke, G.A. Ludvigsen, and J.E. Day (eds.). *Paleozoic sequence stratigraphy: Views from the North American craton*. Geological Society of America Special Paper 306: 131–142.
- Holland, S.M., 1995. The stratigraphic distribution of fossils. *Paleobiology* 21: 92–109.
- Patzkowsky, M.E., and S.M. Holland, 1993. Biotic response to a Middle Ordovician paleoceanographic event in eastern North America. *Geology* 21: 619–622.
- Sahagian, D.L., and S.M. Holland, 1993. On the thermo-mechanical evolution of continental lithosphere. *Journal of Geophysical Research* 98: 8261–8274.

- Holland, S.M., 1993. Sequence stratigraphy of a carbonate–clastic ramp: the Cincinnati Series (Upper Ordovician) in its type area. *Geological Society of America Bulletin* 105: 306–322.
- Sahagian, D.L., and S.M. Holland, 1991. Eustatic sea-level curve based on a stable frame of reference: preliminary results. *Geology* 19: 1209–1212.
- Kidwell, S.M., and S.M. Holland, 1991. Field description of coarse bioclastic fabrics. *Palaios* 6: 426–434.
- Holland, S.M. 1988. Taphonomic effects of sea-floor exposure on an Ordovician brachiopod assemblage. *Palaios* 3: 588–597.

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. Storr, 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.
- Holland, S.M., in press. Ordovician Period (and shorter related contributions). Submitted to *Encyclopaedia Britannica*. Invited Contribution.
- Holland, S.M., 1999. Fossil. In C. Moore et al., eds., *McGraw-Hill Yearbook of Science and Technology*: 176–180.
- Holland, S.M., 1997. Using time–environment analysis to recognize faunal events in the Upper Ordovician of the Cincinnati Arch. in Carlton E. Brett (ed.), *Paleontological Event Horizons: their stratigraphic, ecological, and evolutionary implications*, Columbia University Press: 309–334.
- Holland, S.M., 1995. Depositional sequences, facies control, and the distribution of fossils. in B.U. Haq (ed.), *Sequence stratigraphy and depositional response to tectonic, eustatic, and climatic forcing*. Kluwer Academic Press: Dordrecht, Netherlands: 1–23.

Invited Commentaries

- Holland, S.M., 2017. Presidential address: Structure, not bias. *Journal of Paleontology* 91: 1315–1317.
- Holland, S.M., 2016. Ecological disruption precedes mass extinction. *Proceedings of the National Academy of Sciences, USA*.
- Holland, S.M., 2013. A history of give and take. *Nature* 493: 308–309.
- Bennington, J. B., W.A. Dimichele, C. Badgley, R.K. Bambach, P.M. Barrett, A.K. Behrensmeier, R. Bobe, R.J. Burnham, E.B. Daeschler, J. Van Dam, J.T. Eronen, D.H. Erwin, S. Finnegan, S.M. Holland, G. Hunt,

D. Jablonski, S.T. Jackson, B.F. Jacobs, S.M. Kidwell, P.L. Koch, M.J. Kowalewski, C.C. Labandeira, C.V. Looy, S.K. Lyons, P.M. Novack-Gottshall, R. Potts, P.D. Roopnarine, C.A.E. Strömberg, H.D. Sues, P.J. Wagner, P. Wilf, and S.L. Wing, 2009. Critical issues of scale in paleoecology. *Palaios* 24: 1–4.

Holland, S.M., and J. Allen, 2008. The habitat of primitive vertebrates: The need for sedimentary geology in paleontology. *The Sedimentary Record* 6(4): 4–7.

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.

Duncan, M.S., S.M. Holland, R.S. Harris, A. Martin, and M. Jarrett, 2009. Stop 4, KaMin Eastern Mine — sequence stratigraphy, impact stratigraphy, trace fossils, and paleoclimate research. 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: 83–87.

Holland, S.M., and M.E. Patzkowsky, 2009. The Richmondian Invasion: Understanding the faunal response to climate change through stratigraphic paleobiology. 9th North American Paleontological Convention.

McLaughlin, P.I., C.E. Brett, and S.M. Holland, 2008. Road Log 1: Upper Mohawkian (Chatfieldian) to basal Cincinnatian (Edenian) in central Kentucky—Lexington Limestone—Kope Formation outcrops, Kentucky Route 127 to I-75, Frankfort–Lexington region. In P.I. McLaughlin, C.E. Brett, S.M. Holland, and G.W. Storrs, eds., *Stratigraphic Renaissance in the Cincinnati Arch: Implications for Upper Ordovician Paleontology and Paleocology*, Cincinnati Museum Center Scientific Contributions No. 2: 202–227.

Brett, C.E., T.J. Algeo, S.M. Holland, and P.I. McLaughlin, 2008. Road Log 2: Upper Mohawkian to Maysvillian in northern Kentucky—Point Pleasant–Kope–Fairview outcrops, Ohio River area from Fort Thomas to Maysville. In P.I. McLaughlin, C.E. Brett, S.M. Holland, and G.W. Storrs, eds., *Stratigraphic Renaissance in the Cincinnati Arch: Implications for Upper Ordovician Paleontology and Paleocology*, Cincinnati Museum Center Scientific Contributions No. 2: 228–259.

Holland, S.M., and M.E. Patzkowsky, 2008. Road Log 3: Cincinnatian (Maysvillian–Richmondian) strata and fossils in southern Ohio and Indiana. In P.I. McLaughlin, C.E. Brett, S.M. Holland, and G.W. Storrs, eds., *Stratigraphic Renaissance in the Cincinnati Arch: Implications for Upper Ordovician Paleontology and Paleocology*, Cincinnati Museum Center Scientific Contributions No. 2: 260–280.

Holland, S.M., 1999. Carbonate facies, parasequences and stacking patterns in the Middle Ordovician of central and eastern Tennessee. In T.M. Chowns, S.M. Holland, and W.C. Elliot, eds., *An introduction to sequence stratigraphy: Illustrations from the Valley and Ridge Province in Georgia and Alabama*. Georgia Geological Society Guidebook 19: 27–36.

Holland, S.M., 1999. Stop 4. Recognition of sequences and parasequences in Middle Ordovician limestones. In T.M. Chowns, S.M. Holland, and W.C. Elliot, eds., *An introduction to sequence stratigraphy: Illustrations from the Valley and Ridge Province in Georgia and Alabama*. Georgia Geological Society Guidebook 19: 46–48.

- Holland, S.M., A.I. Miller, and D.L. Meyer, 1999. Sequence stratigraphy of the Kope–Fairview interval (Upper Ordovician, Cincinnati, Ohio area). *In* T.J. Algeo and C.E. Brett, eds., Sequence, cycle & event stratigraphy of Upper Ordovician & Silurian strata of the Cincinnati Arch region. Field Trip Guidebook, Great Lakes Section SEPM, October 8–10, 1999: 93–102.
- Holland, S.M., 1998. Sequence stratigraphy of the Cincinnati Series. *In* R.A. Davis and R.J. Cuffey (eds.), Sampling the layer cake that isn't: the stratigraphy and paleontology of the type Cincinnati, Ohio Division of Geological Survey Guidebook No. 13: 135–151.
- Davis, R.A., S.C. Diekmeyer, L.I. Goldman, B.F. Dattilo, S.M. Holland and R.J. Cuffey, 1998. Appendix A: Type-Cincinnati localities. *In* R.A. Davis and R.J. Cuffey (eds.), Sampling the layer cake that isn't: the stratigraphy and paleontology of the type Cincinnati, Ohio Division of Geological Survey Guidebook No. 13: 152–166.

Book Reviews

- Holland, S.M., 2005. Review of High-Resolution Approaches to Stratigraphic Paleontology: P. Harries (editor), Dordrecht: Kluwer Academic Publishers, 2003. *Palaios* 20: 96–97.
- Holland, S.M., 2001. Review of Sedimentary Responses to Forced Regressions: Geological Society Special Publication No. 172, D. Hunt and R.L. Gawthorpe (Editors), London: Geological Society, 2000. *GSA Today* 11(2): 17.
- Holland, S.M., 2000. Review of Numerical Experiments in Stratigraphy: Recent Advances in Stratigraphic and Sedimentologic Computer Simulations: SEPM Special Publication 62, John W. Harbaugh, W. Lynn Watney, Eugene C. Rankey, Rudy Slingerland, Robert H. Goldstein, and Evan K. Franseen (Editors), Tulsa, Oklahoma: SEPM, 1999. *Palaios* 15: 581–582.
- Holland, S.M., 1991. Review of Quantitative Dynamic Stratigraphy, T.A. Cross (Editor), Englewood Cliffs, New Jersey: Prentice Hall, 1990. *Journal of Geology* 99: 786.

Discussions & Replies

- Miller, A.I., S.M. Holland, M.L. Droser, and M.E. Patzkowsky, 1998. Dynamics of the Ordovician Radiation (a comment on Westrop and Adrain). *Paleobiology* 24: 524–528.
- Holland, S.M., 1993. Reply to Discussion of Sequence stratigraphy of a carbonate–clastic ramp: the Cincinnati Series (Upper Ordovician) in its type area. *Geological Society of America Bulletin* 105: 1639–1640.
- Patzkowsky, M.E., and S.M. Holland. 1988. Discussion on Upper Devonian Catskill Delta margin cyclic sedimentation: Brallier, Scherr, and Foreknobs formations of Virginia and West Virginia. *Geological Society of America Bulletin* 100: 993.

SOFTWARE

- Holland, S.M. 2022. strataR: an R package for simulating the nonmarine stratigraphic and fossil record. <https://github.com/hms-github/strataR>
- Holland, S.M. 2005. Margin of Error. <http://www.huntmountainsoftware.com/html/marginOfError.html>
- Holland, S.M. 2003. Backstrip. <http://www.huntmountainsoftware.com/html/backstrip.html>
- Holland, S.M. 1998. Analytic Rarefaction. <http://www.huntmountainsoftware.com/html/rarefaction.html>

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.

ABSTRACTS (*INVITED)

Holland, S.M. 2024. Bridging the gap: the disparate expressions of biotic events in nonmarine, shallow siliciclastic, and shallow carbonate settings. North American Paleontological Convention, Ann Arbor, Michigan.

Orchard, C.J., N.A. Jud, M.T. Carrano, and S.M. Holland. 2024. Potential sources of community composition change in the Cloverly Formation and Sykes Mountain Formation of Wyoming, USA. North American Paleontological Convention, Ann Arbor, Michigan.

Laubenstein, A., A. Milewski, and S. Holland. 2024. Groundwater–surface water connectivity of the Claiborne Aquifer, southwest Georgia, USA. Apalachicola-Chattahoochee-Flint Waters Conference, Albany, Georgia.

Holland, S.M., C.J. Orchard, and K.M. Loughney. 2023. Modern nonmarine ecological gradients and their implications for the fossil record. Geological Society of America Abstracts with Program 55.

Orchard, C.J., and S.M. Holland. 2023. Lateral variation in the record of transgressions in nonmarine successions: Cloverly Formation, Wyoming, USA. Geological Society of America Abstracts with Program 55.

* Holland, S.M. 2023. The interplay of stratigraphic architecture and ecological gradients: the oft-overlooked control on the stratigraphic occurrence of fossils. STRATI 2023: 4th International Congress on Stratigraphy, p. 451–452. *Keynote speaker*.

Zimmt, J.B., S.M. Holland, S. Finnegan, D.S. Jones, and A. Desrochers. 2023. A new framework for reinterpreting the Late Ordovician mass extinction on Anticosti Island (Québec, Canada): sequence stratigraphic correlation within the eastern Ellis Bay Formation. STRATI 2023: 4th International Congress on Stratigraphy, p. 338–339.

Zimmt, J.B., S.M. Holland, M. Cappello, D.S. Jones, J.S. Jin, J.M. Husson, B. Schoene, C. Mitchell, M. Melchin, S. Finnegan, and A. Desrochers. 2023. An integrative biostratigraphic, chemostratigraphic, and sequence stratigraphic perspective of the Ordovician–Silurian boundary on Anticosti Island (Canada). *Estonian Journal of Earth Sciences* 72: 170.

Holland, S.M. 2022. Contrasting expressions of the stratigraphic paleobiology of marine and nonmarine systems. Geological Society of America Abstracts with Program 54.

Cone, M., and S.M. Holland. 2022. Community composition and taphonomy of fossil wood in valley-fill fluvial channels of the Pennsylvanian Breathitt Group in eastern Kentucky. Geological Society of America Abstracts with Program 54.

Loughney, K.M., and S.M. Holland, 2022. Simulating spatial and temporal patterns of architecture and fossil preservation across nonmarine extensional basins. Geological Society of America Abstracts with Program 54.

Regan, A.K., R.R. Rogers, and S.M. Holland, 2022. Probability of occurrence of nonmarine fossils in the Judith River Formation of north-central Montana. Geological Society of America Abstracts with Program 54.

- Samuels-Fair, M., J. Zimmt, S.M. Holland, and S. Finnegan, 2021. A simulation framework for understanding the influence of sampling on apparent diversity partitioning patterns within depositional basins. Geological Society of America Abstracts with Program 53.
- Blake, E., and S.M. Holland, 2021. Using sequence stratigraphy to predict vertebrate trackways in coastal settings: Jurassic Gypsum Spring and Sundance formations, Bighorn Basin, USA. Geological Society of America Abstracts with Program 53.
- Deckman, M., D.M. Lovelace, and S.M. Holland, 2021. Lateral variability of splay deposits in a distributive fluvial system: Upper Triassic Chugwater Group, Fremont County, Wyoming. Geological Society of America Abstracts with Program 53.
- Khatri, S., W.L. Beatty, and S.M. Holland, 2021. Nonmarine sequence-stratigraphic architecture of the Upper Cretaceous Hell Creek Formation, near Marmarth, North Dakota. Geological Society of America Abstracts with Program 53.
- Regan, A., and S.M. Holland, 2021. Modeling nonmarine fossil occurrences in a sequence stratigraphic framework using an embedded Markov chain method. Geological Society of America Abstracts with Program 53.
- Zimmt, J.B., S.M. Holland, S. Finnegan, and C.R. Marshall, 2020. A method for determining which clusters of last occurrences in the stratigraphic record likely represent pulses of extinction. Geological Society of America Abstracts with Programs 52.
- Zimmt, J.B., S.M. Holland, S. Finnegan, and C.R. Marshall, 2020. Recognizing pulses of extinction from clusters of last occurrences: a Late Ordovician case study. IGCP 653 Annual Meeting: Gopenhagen Online.
- Danise, S., S.M. Holland, and G. Price, 2020. Combining palaeontological and geochemical data to reconstruct environmental gradients, a case study from the Jurassic Sundance Seaway. European Geophysical Union.
- Shatz, S.R., and S.M. Holland, 2020. Sandstone provenance of the marine Jurassic of western Canada and central Montana. Geological Society of America Abstracts with Programs 52.
- Swenson, S.K., and S.M. Holland, 2019. Paleobiology of the Ellis Group of Montana: implications for the history and communities of the Sundance Seaway. Geological Society of America Abstracts with Programs 51(5).
- Hess, R.M., and S.M. Holland, 2019. Sequence-stratigraphic architecture and facies of the Middle to Upper Jurassic Preuss and Stump Formations, Wyoming and Idaho, USA. Geological Society of America Abstracts with Programs 51(5).
- Holland, S., and K. Loughney, 2019. Predictions for the stratigraphic paleobiology of continental systems. *PalaeoBios* 36 (Supplement 1): 171.
- Danise, S., S. Holland, and G. Price, 2019. Environmental drivers of faunal change in the Jurassic Sundance Seaway, western United States. *PalaeoBios* 36 (Supplement 1): 116.
- Zimmt, J., S. Holland, C. Marshall, and S. Finnegan, 2019. Exploring the impact of stratigraphic architecture on the pattern and timing of Late Ordovician extinction events. *PalaeoBios* 36 (Supplement 1): 384.
- Danise, S., S.M. Holland, and G.D. Price, 2019. Environmental and faunal changes in the Jurassic Sundance Seaway, western United States: integrating geochemical and fossil data. International Association of Sedimentologists Annual Meeting, Rome, Italy.

- Sleister, S., and S.M. Holland, 2019. Testing for changes in provenance in the marine Jurassic of Wyoming and Utah. Geological Society of America Abstracts with Programs 51.
- Holland, S.M., and K.M. Loughney, 2018. The stratigraphic paleobiology of continental systems: initial considerations. Geological Society of America Abstracts with Programs 50, doi: 10.1130/abs/2018AM-318038
- Hess, R.M., and S.M. Holland, 2018. Facies and sequence stratigraphic architecture of the Upper Jurassic Stump and Preuss Formations, LaBarge Creek, Wyoming, USA. Geological Society of America Abstracts with Programs 50, doi: 10.1130/abs/2018AM-322697.
- Zimmt, J.B., S.M. Holland, S. Finnegan, and C.R. Marshall, 2018. One pulse or two? Combining simulations of sequence-stratigraphic architecture and diversification processes to model the expression of the Late Ordovician mass extinction. Geological Society of America Abstracts with Programs 50, doi: 10.1130/abs/2018AM-317297
- Swenson, S.K., and S.M. Holland, 2018. Siliciclastic shelf and estuarine facies of the marine Jurassic Swift Formation, Montana, U.S.A. Geological Society of America Abstracts with Programs 50, doi: 10.1130/abs/2018AM-322691
- Holland, S.M. 2017. Reconsidering the predicted effects of plate tectonic processes on regional and global diversity: new insights from neutral theory. Geological Society of America Abstracts with Program 50.
- Wright, S.N., and S.M. Holland. 2017. Alternating progradational and degradational regimes in an open-coast tidal flat: the Jurassic Redwater–Windy Hill–Morrison transition, Wyoming, USA. Geological Society of America Abstracts with Program 50.
- Danise, S., and S.M. Holland. 2017. Faunal response to sea level and environmental change in the Jurassic Sundance Seaway, western United States: a stratigraphic palaeobiological approach. 61st Annual Meeting of the Palaeontological Association, Programme and Abstracts p. 39–40.
- Danise, S., and S.M. Holland. 2017. Evolution of a carbonate-evaporite-siliciclastic system in the distal part of a retroarc foreland basin: Middle–Late Jurassic Sundance Seaway, USA. International Meeting of Sedimentology 2017, Toulouse, France. Abstract Book: 221.
- Danise, S., S.M. Holland, and G. Price. 2017. Integrating sequence stratigraphy and stable isotope geochemistry to reconstruct environmental and climate change in the Jurassic Sundance Seaway. International Meeting of Sedimentology 2017, Toulouse, France. Abstract Book: 220.
- Danise, S., and S.M. Holland. 2017. Faunal and environmental changes in the Jurassic Sundance Seaway, western United States. Paleodays 2017, Riassunti: 31.
- Danise, S., and S.M. Holland. 2017. Environmental and faunal change in the Jurassic Sundance Seaway, western United States: a stratigraphic palaeobiological approach. Geophysical Research Abstracts Vol. 19, EGU2017-2805. EGU General Assembly 2017.
- Simmons, J.C., and S.M. Holland. 2017. Sandstone provenance in the Jurassic Sundance Seaway, Wyoming, USA. Geological Society of America Abstracts with Program 49.
- Holland, S.M. 2016. The large-scale structure of the fossil record. Geological Society of America Abstracts with Program 48.
- Danise, S., Kusnerik, K.M., and S.M. Holland. 2016. Opening and closing of a short-lived (13 m.y.) seaway: faunal response to sea level and climate change. Geological Society of America Abstracts with Program 48.

- Monarrez, P.M., M. Aberhan, and S.M. Holland. 2016. Regional and environmental tests of the escalation hypothesis during the Jurassic: a Tethyan origin to escalation? Geological Society of America Abstracts with Program 48.
- Poncelet, A., S.M. Holland, and S. Danise. 2016. Jurassic carbonates of northern Wyoming: possible evidence of climate change in the Sundance seaway. Geological Society of America Abstracts with Program 48.
- Wright, S., and S.M. Holland. 2016. Drone-based measurement of stratigraphic columns and cross-sections. Geological Society of America Abstracts with Program 48.
- Kusnerik, K.M., and S.M. Holland. 2015. Biogeography of the Jurassic Sundance Seaway of western North America: a test of the single northern entrance. Geological Society of America Abstracts with Program 47.
- Dattilo, B.F., C.E. Brett, D.L. Meyer, R.L. Freeman, B.R. Hunda, S.M. Holland, A.L. Stigall, B. Deline, C.D. Sumrall, and M.A. Wilson. 2015. Non-academic paleontologists are essential to the survival of paleontology: lessons from the Cincinnati school. Geological Society of America Abstracts with Program 47.
- Holland, S.M., and M.E. Patzkowsky. 2015. The stratigraphy of mass extinction. Geological Society of America Abstracts with Program 47.
- * Holland, S.M. 2015. The stratigraphy of mass extinction. European Geophysical Union Annual Meeting.
- Workman, Sydne A., Jason M. Burwell, and Steven M. Holland, 2015. Regional variability in the stratigraphy of the marine Jurassic of northern Wyoming: evidence from resistivity and gamma logs. Geological Society of America Abstracts with Program 47.
- Kusnerik, Kristopher M., and Steven M. Holland, 2015. Community paleoecology of the Jurassic (Bajocian–Oxfordian) Sundance Seaway in the Bighorn Basin of Wyoming and Montana, United States. Geological Society of America Abstracts with Program 47.
- Jarochowska, E., A.L. Keller, J. Kimmig, E. Larina, R.J. LaVine, Katharine M. Loughney, E.A. Orzechowski, N.D. Pierrehumbert, A. Rojas, J.A. Sclafani, A. Singer, J.A. Yager, M. Christie, S.K. McMullen, S.M. Holland, and M.E. Patzkowsky, 2014. Sequence stratigraphic control over biofacies distribution and ecological gradients in the Mississippian Lodgepole Formation, Montana. Palaeontological Association Annual Meeting.
- Clement, A.M., S.M. Holland, and D. Graybeal, 2014. Sequence stratigraphy of the Middle Jurassic Gypsum Spring and Piper Formations in the eastern Bighorn Basin of Wyoming. Geological Society of America Abstracts with Program 46.
- Lavine, R.J.I., E.A. Orzechowski, N.D. Pierrehumbert, A. Rojas, J.A. Sclafani, J.A. Yager, M. Christie, S.K. McMullen, S.M. Holland, and M.E. Patzkowsky, 2014. Ecological gradient structure in the Mississippian Lodgepole Formation, southwest Montana. Geological Society of America Abstracts with Program 46.
- Loughney, K.M., E. Jarochowska, A.L. Keller, J. Kimmig, E. Larina, A. Singer, S.K. McMullen, M. Christie, S.M. Holland, and M.E. Patzkowsky, 2014. Sequence stratigraphic architecture drives biofacies distribution of the Mississippian Lodgepole Formation in south-central Montana. Geological Society of America Abstracts with Program 46.
- * Holland, S.M., 2014. The stratigraphic paleobiology of marine vertebrates. North American Paleontological Convention, Gainesville, Florida.

- Jenkins, C., and S.M. Holland, 2014. Initiation of provinciality across Laurentia during the Ordovician. North American Paleontological Convention, Gainesville, Florida.
- * Patzkowsky, M.E., and S.M. Holland, 2014. Stratigraphic paleobiology and the origin of regional biotas. North American Paleontological Convention, Gainesville, Florida.
- Holland, S.M., and J.A. Sclafani, 2013. Phanerozoic increase in Hubbell's theta: Linking diversity from the alpha level to the provincial level. Geological Society of America Abstracts with Program 45.
- Sclafani, J.A., A.L. Platsky, C. Jenkins, and S.M. Holland, 2013. Applying neutral theory to the fossil record: guidelines for estimating Hubbell's theta. Geological Society of America Abstracts with Program 45.
- Holland, S.M., 2012. Geologically rapid biotic response times to changes in habitat area: evidence from a neutral ecological model. Geological Society of America Abstracts with Program 44.
- Christie, M., S.M. Holland, and A.M. Bush, 2012. Contrasting taxonomic and ecological change across the Mid-Late Devonian interval. Geological Society of America Abstracts with Program 44.
- McMullen, S.K., S.M. Holland, and J.W. Primm, 2012. Incised valley fills in the Jurassic Sundance Formation, Bighorn Basin, Wyoming, USA. Geological Society of America Abstracts with Program 44.
- Sclafani, J.A., and S.M. Holland, 2012. Using Hubbell's neutral theory to test the species-area relationship in the Late Ordovician of Laurentia. Geological Society of America Abstracts with Program 44.
- Carney, J.A., L. Hancock, and S.M. Holland, 2012. Developing a key for identifying trepostome bryozoans from the Cincinnati Series of the Cincinnati Arch. Geological Society of America Abstracts with Program 44.
- Hancock, L., J.A. Carney, and S.M. Holland, 2012. Depth-related bryozoan associations within the C5 sequence (Late Ordovician, Richmondian) of the Cincinnati Arch. Geological Society of America Abstracts with Program 44.
- Cameron, S., S.K. McMullen, and S.M. Holland, 2012. Well-log correlations and sequence stratigraphic interpretations of the Jurassic Sundance Formation, northwest Wyoming. Geological Society of America Abstracts with Program 44.
- Holland, S.M., and M. Christie, 2011. Deposition-driven changes in habitat area: The shoreface as a diversity factory. Geological Society of America Abstracts with Program 43(5): 542.
- Christie, M., and S.M. Holland, 2011. Does ecological change scale with percent extinction? Quantifying the difference between taxonomic loss and functional ecology. Geological Society of America Abstracts with Program 43(5): 542.
- McMullen, S.K., R.F. O'Keefe, and S.M. Holland, 2011. The occurrence of vertebrate and invertebrate fossils in a sequence stratigraphic context: The Jurassic Sundance Formation, Bighorn Basin, Wyoming, USA. Geological Society of America Abstracts with Program 43(5): 602.
- Patzkowsky, M., and S.M. Holland, 2011. Biotic invasion and the assembly of regional ecosystems in deep time. Geological Society of America Abstracts with Program 43(5): 541.
- Holland, S.M., 2010. The common-cause hypothesis: initial predictions of habitable area from simple geometric models. Geological Society of America Abstracts with Program 42(5): 138.

- Christie, M., and S.M. Holland, 2010. The contrasting effects of extinction on taxonomic and ecological composition: initial results of numerical experiments. *Geological Society of America Abstracts with Program* 42(5): 255.
- Zaffos, A., and S.M. Holland, 2010. Brachiopod abundance and extinction in the Late Ordovician and Early Silurian: background effects during a mass extinction. *Geological Society of America Abstracts with Program* 42(5): 481.
- Liow, L.H., and S.M. Holland, 2010. Changing tides and times: ecological and sampling influences on occupancy in Ordovician seas. *Evolution* 2010. Portland, Oregon.
- * Holland, S.M., 2009. Additive diversity partitioning in paleobiology: revisiting Sepkoski's question. *Palaeontological Association Annual Meeting*. (plenary talk)
- Holland, S.M., and A. Zaffos, 2009. Testing the importance of incumbency: the conservation of ecological response curves along an onshore-offshore gradient. *9th North American Paleontological Convention*.
- Holland, S.M., and M.E. Patzkowsky, 2008. Stratigraphic distribution of fossils in a tropical carbonate succession: Ordovician Bighorn Dolomite, Wyoming, USA. *Geological Society of America Abstracts with Program* 39(7).
- Holland, S.M., 2007. Moving beyond bias: a model for the common cause of evolutionary and stratigraphic patterns, based on Hubbell's unified theory. *Geological Society of America Abstracts with Program* 38(7).
- Patzkowsky, M.E., and S.M. Holland, 2006. The ecology of taxonomic turnover: changes in the local abundance and spatial distribution of taxa through time. *Geological Society of America Abstracts with Program* 38(7): 86.
- Holland, S.M., and M.E. Patzkowsky, 2006. Reevaluating the utility of detrended correspondence analysis and non-metric multidimensional scaling for ecological ordination. *Geological Society of America Abstracts with Program* 38(7): 88.
- * Layou, K., S.M. Holland, and M.E. Patzkowsky, 2006. Lasting effects of extinction and invasion on community structure: a deep-time perspective, *Ecological Society of America*.
- Holland, S.M., and M.E. Patzkowsky, 2005. Gradient ecology during a marine biotic invasion: Upper Ordovician of the Cincinnati Arch. *Geological Society of America Abstracts with Program* 37(7): 460.
- Patzkowsky, M.E., and S.M. Holland, 2005. Additive partitioning of a marine biotic invasion: Upper Ordovician of the Cincinnati Arch. *Geological Society of America Abstracts with Program* 37(7): 461.
- Layou, K.M., and S.M. Holland, 2005. Bringing up beta: examining the effects of extinction on diversity with an additive partitioning model. *Geological Society of America Abstracts with Program* 37(7): 461.
- Purdin, B., L.B. Railsback, S.M. Holland, D.E. Crowe, 2005. Significance of $\delta^{13}\text{C}$ and $\delta^{18}\text{O}$, and strontium content in the identification of surfaces of subaerial exposure in Ordovician limestones of the Nashville Dome, Tennessee, U.S.A. *Geological Society of America Abstracts with Program* 37(7): 356.
- Layou, K.M., and S.M. Holland, 2005. Examining the effects of extinction on diversity with null models: bringing up beta. *Earth Systems Processes* 2, Calgary.

- Heim, N.A. and S.M. Holland, 2005. A null biogeographic model for quantifying the role of migration in shaping taxonomic richness and similarity patterns. Seventh North American Paleontological Convention, Dalhousie, Nova Scotia. *PaleoBios* 25(Supplement to 2): 59.
- Harris, R.S., L.B. Railsback, M.F. Roden, and S.M. Holland, 2005. Sedimentary petrology of Upper Eocene ejecta-bearing sands from the southeastern coastal plain. SEPM Annual Meeting.
- Purdin, B.L., L.B. Railsback, S.M. Holland, and D. Crowe, 2005. Significance and variation in $\delta^{13}\text{C}$ and $\delta^{18}\text{O}$ across surfaces of subaerial exposure in Ordovician limestones of the Nashville Dome, TN. Geological Society of America Abstracts with Program 37(2): 11.
- Heim, N.A. and S.M. Holland, 2004. A null biogeographic model for quantifying the role of dispersal in shaping taxonomic richness and similarity patterns. 48th Palaeontological Association Annual Meeting Abstracts with Programme, Palaeontological Association Newsletter 57: 122.
- Holland, S.M., and M.E. Patzkowsky, 2004. A new method for comparing species ecology in time and space: evaluating faunal stability during the Late Ordovician, Cincinnati Arch. Geological Society of America Abstracts with Program 36(5): 312.
- Patzkowsky, M.E., and S.M. Holland, 2004. Alpha, beta, and gamma: Diversity partitioning during a marine biotic invasion, Upper Ordovician, Cincinnati Arch. Geological Society of America Abstracts with Program 36(5): 312.
- Heim, N.A., K.M. Layout, L.B. Railsback, S.M. Holland, J.E. Cox, and D.E. Crowe, 2004. Geochemical evidence of subaerial exposure at parasequence boundaries in Upper Ordovician limestones from the Nashville Dome, Tennessee, U.S.A. Geological Society of America Abstracts with Program 36(5): 76.
- Layout, K.M. and S.M. Holland, 2004. A quantitative null model of expected changes in ecological community structure following an extinction. Geological Society of America Abstracts with Program 36(5): 312.
- Allulee, J.L. and S.M. Holland, 2004. The habitat of early pteraspidomorph agnathans: Upper Ordovician Harding Sandstone, Colorado. Geological Society of America Abstracts with Program 36(5): 381.
- Allen, J.A., M.S. Duncan, and S.M. Holland, 2004. Sequence stratigraphy of the late Eocene Dry Branch Formation in the Georgia Coastal Plain. Geological Society of America Abstracts with Program 36(2): 90.
- Holland, S.M., 2003. The signatures of patches and gradients in ecological ordinations. Geological Society of America Abstracts with Program 35(7): 589.
- Roden, Michael, and S.M. Holland, 2003. Principal component analysis of bulk compositions of Eocene tektites from eastern North America. Clay Minerals Society Meeting, Abstracts.
- Levy, G.M., and S.M. Holland, 2002. Using ecological ordination to test for ecophenotypic and evolutionary change in the brachiopod *Sowerbyella rugosa* from the Upper Ordovician Kope Formation of northern Kentucky. Geological Society of America Abstracts with Program 34(6): 399.
- Harris, R.S., M.S. Duncan, S.M. Holland, M.F. Roden, and P.A. Schroeder, 2002. Probable shocked quartz as evidence for an Upper Eocene impact horizon in coastal plain strata, Warren County, Georgia, U.S.A. Geological Society of America Abstracts with Program 34(6): 402.

- Schroeder, P.A., R.S. Harris, M.F. Roden, M.S. Duncan, and S.M. Holland, 2002. X-ray diffraction evidence for shocked quartz in an Upper Eocene sand deposit, Warren County, Georgia, U.S.A. Geological Society of America Abstracts with Program 34(6): 544.
- Levy, G.M., and S.M. Holland, 2002. The influence of environmental change: the brachiopod *Sowerbyella rugosa* in the Upper Ordovician Kope Formation of the Cincinnati, Ohio area. Geological Society of America Abstracts with Program 34(2): A116.
- Holland, S.M., 2001. Confidence limits on fossil ranges that account for sequence architecture. Geological Society of America Abstracts with Program 33(6): A31.
- Patzkowsky, M.E., and S.M. Holland, 2001. Stratigraphic controls on regional diversity in the Late Ordovician: Correcting for the effects of facies availability and sampling intensity. Geological Society of America Abstracts with Program 33(6): A31.
- Webber, A., A.I. Miller, and S.M. Holland, 2000. High-resolution chronostratigraphy in the type Cincinnati: a quantitative approach to correlation over a broad geographic area. Geological Society of America Abstracts with Program 32(7): A154–155.
- Holland, S.M., and A.I. Miller, 2000. The detection and importance of subtle environmental controls on the stratigraphic distribution of fossils. Geological Society of America Abstracts with Program 32(7): A96.
- Cerajewski, R.J., R.E. Crisp, J.A. Kucinskis, L.M. Baldini, F.E. Stroik, K.R. Summers, H.L. Xiao, L.B. Railsback, and S.M. Holland, 2000. Evidence for meteoric diagenesis and subaerial exposure at the Trenton Transgression flooding surface, Middle Ordovician, Carthage, Tennessee. Geological Society of America Abstracts with Program 32(7): A178–179.
- Walker, S.E., S.M. Holland, and L. Gardiner, 2000. Hurricane Floyd's effect on the Cockburn Town fossil reef site. 10th Symposium on the geology of the Bahamas and other carbonate regions.
- Herrmann, A.D., M.E. Patzkowsky, and S.M. Holland, 1999. Evaluating graphic correlation with simulated data. Geological Society of America Abstracts with Program 31(7): A468.
- Patzkowsky, M.E., and S.M. Holland, 1999. Were Paleozoic marine communities saturated with species?: the influence of local and regional processes on local diversity of fossil assemblages. Geological Society of America Abstracts with Program 31(7): A335.
- Holland, S.M., and M.E. Patzkowsky, 1999. Simulating the first and last occurrences of fossils: implications for paleobiology and biostratigraphy. Geological Society of America Abstracts with Program 31(7): A41.
- Hunter, D.M., S.M. Holland, and L.B. Railsback, 1999. Testing for subaerial exposure at five Upper Ordovician sequence boundaries, Nashville Dome, Tennessee. Geological Society of America Abstracts with Program 31(7): A290.
- Pope, M.C., S.M. Holland, and M.E. Patzkowsky, 1999. The Cincinnati Arch—A stationary peripheral bulge during the Middle and Late Ordovician: implications for flexural models of foreland basin development. Geological Society of America Abstracts with Program 31(7): A425.
- Marshall, C.R., J. Alroy, and the NCEAS Phanerozoic Diversity Working Group, 1999. Towards a sample-standardized Phanerozoic diversity curve. Geological Society of America Abstracts with Program 31(7): A336.
- Herrmann, A., Patzkowsky, M.E., and Holland, S.M., 1999. Evaluating graphic correlation with numerical models: 19th Regional European Meeting of Sedimentology Abstracts: 110.

- Holland, S.M., and M.E. Patzkowsky, 1999. Depositional sequences and biostratigraphy: the role of sequence architecture in the timing of first and last appearances, AAPG Annual Meeting Official Program 8: 61–62.
- Holland, S.M., and M.E. Patzkowsky, 1999. An unusual occurrence of sponges from the Upper Ordovician of the Nashville Dome, Tennessee. Geological Society of America Abstracts with Program 31(3): 21.
- Hunter, D.L., S.M. Holland, and L.B. Railsback, 1999. Testing for subaerial exposure at five Upper Ordovician sequence boundaries, Nashville Dome, Tennessee. Geological Society of America Abstracts with Program 31(3).
- Smith, J.L., S.M. Holland, and J.F. Jordan, 1998. Recognition and distribution of biofacies within a third-order depositional sequence from the Bangor–Pennington interval, Chesterian (Mississippian) of Southeastern Tennessee. Geological Society of America Abstracts with Program 30(7): 32.
- Patzkowsky, M.E., and S.M. Holland, 1998. Biofacies replacement and guild structure within an ecologic-evolutionary unit: Middle and Upper Ordovician of the Nashville Dome, Tennessee. Geological Society of America Abstracts with Program 30(7): 40.
- Holland, S.M., N.C. Hughes, and A.I. Miller, 1998. Using “facies fossils” to constrain high-resolution cyclic correlations in the Kope Formation (Upper Ordovician), Cincinnati, Ohio area. Geological Society of America Abstracts with Program 30(7): 117.
- Baldini, J.U.L., J.T. Elkins, L.S. Gardiner, D.M. Hunter, L.B. Railsback, and S.M. Holland, 1998. Petrographic and geochemical evidence for meteoric diagenesis at a Type I sequence boundary in Ordovician limestones near Pulaski, Tennessee. Geological Society of America Abstracts with Program 30(7): 332.
- Holland, S.M., M.E. Patzkowsky, 1998. Depositional sequences and the stratigraphic distribution of fossils: Isolating the effects of condensation, AAPG Annual Meeting.
- Holland, S.M., and M.E. Patzkowsky, 1998. Carbonate parasequences and stacking patterns in the Chickamauga Group (Middle Ordovician) of eastern Tennessee. Geological Society of America Abstracts with Programs 30(4): 17.
- Benson, A.C., and S.M. Holland, 1998. Geochemical and sequence stratigraphic evidence of subaerial exposure at the M5 sequence boundary (Middle Ordovician) at Hagan, Virginia. Geological Society of America Abstracts with Programs 30(4): 3.
- Smith, J., J.F. Jordan, and S.M. Holland, 1998. Sequence biostratigraphy of the Bangor-Pennington interval (Chesterian, Mississippian) near Monteagle, Tennessee. Geological Society of America Abstracts with Programs 30(4): 60.
- Meyer, D.L., A.I. Miller, B.F. Dattilo, and S.M. Holland, 1998. Crinoid morphology across a sequence boundary: Kope to Fairview Formations. Geological Society of America Abstracts with Programs 30(2): 61.
- Dattilo, B.F., A.I. Miller, S.M. Holland, and D.L. Meyer, 1997. Ecostratigraphic cycle anatomy in the type Cincinnati (Upper Ordovician): the relationship between lithologic and faunal cyclicity, Geological Society of America Abstracts with Programs 29.
- Holland, S.M., and M.E. Patzkowsky, 1997. Changing expressions of sequence architecture on an active peripheral bulge: Middle and Upper Ordovician of the Nashville Dome, Tennessee, Geological Society of America Abstracts with Programs 29.

- Patzkowsky, M.E., and S.M. Holland, 1996. Lack of coordinated stasis in Middle and Upper Ordovician articulate brachiopods of the eastern United States, Geological Society of America Abstracts with Programs 28: 291.
- Roden, M., D. Kamola, S. Holland, D. Crowe, C. Fleisher, and J. Sternberg, 1996. Punctuated equilibrium: the case for thematic and extended field trips during a 6 week field school, Geological Society of America Abstracts with Programs 28: 328.
- * Holland, S.M., A.I. Miller, B.F. Dattilo, and D.L. Meyer, 1996. Variations in cyclicity within the Cincinnati Kope Formation: Stratigraphic resolution and perceptions of cycle architecture, Geological Society of America Abstracts with Programs 28: 236.
- Kamola, D.L., and S.M. Holland, 1996. Lowstand submarine bypass surfaces and their implications for detached lowstand deposition, Mancos Shale, Book Cliffs, Utah. AAPG Annual Meeting.
- Holland, S.M., 1996. Guidelines for interpreting the stratigraphic record of extinctions: distinguishing pattern from artifact, Sixth North American Paleontological Convention Abstracts of Papers, Paleontological Society Special Publication 8: 174.
- Patzkowsky, M.E., and S.M. Holland, 1996. Patterns of persistence and turnover in Middle and Upper Ordovician marine benthic assemblages: stratigraphic artifact or biologic signal?, Geological Society of America Abstracts with Programs 28: 90.
- Bouker, P.A., and S.M. Holland, 1996. Quantifying tempestite proximity using multivariate statistics: Silurian Red Mountain Formation, Ringgold Gap, Georgia, Geological Society of America Abstracts with Programs 28: 4.
- Holland, S.M., and M.E. Patzkowsky, 1995. Muddy carbonates of the Nashville Dome: Tectonic, oceanographic and sedimentologic effects of the Ordovician Taconic orogeny, Geological Society of America Abstracts with Programs 27: A450.
- Holland, S.M., 1994. Strategies for field tests of coordinated stasis: implications of stochastic models, Geological Society of America Abstracts with Programs 26.
- Patzkowsky, M.E., and S.M. Holland, 1994. Paleooceanographic model for Ordovician organic-rich facies in eastern North America: local or global causes? AAPG Annual Meeting.
- Holland, S.M., B.F. Dattilo, A.I. Miller, D.L. Meyer, and S.C. Diekmeyer, 1993. Anatomy of a mixed carbonate-clastic depositional sequence, Geological Society of America Abstracts with Programs 25: A338.
- Dattilo, B.F., S.M. Holland, A.I. Miller, D.L. Meyer, and S.C. Diekmeyer, 1993. Methods of high-resolution chronostratigraphy and their application in the type Cincinnati, Geological Society of America Abstracts with Programs 25: A338.
- Patzkowsky, M.E., and S.M. Holland, 1993. Ecological and environmental patterns of extinction: Comparisons of Late Cambrian and Middle Ordovician extinctions, Geological Society of America Abstracts with Programs 25: A332.
- Holland, S.M., 1993. Stochastic modeling of the stratigraphic distribution of fossils in depositional sequences, SEPM Annual Meeting.
- Patzkowsky, M.E., and S.M. Holland, 1993. Sea level change and faunal turnover in the Paleozoic, SEPM Annual Meeting.
- * Holland, S.M., and M.E. Patzkowsky, 1993. A mid-Ordovician regional extinction produced by a major paleooceanographic event, Geological Society of America Abstracts with Programs 25: A53.

- Sahagian, D.L., and S.M. Holland, 1993. On the thermo-mechanical evolution of continental lithosphere, *Geophysical Abstracts in Press* 3: 14.
- Holland, S.M., 1992. True and apparent paleontologic patterns produced by stratigraphic sequences, Fifth North American Paleontological Convention Abstracts and Program, Paleontological Society Special Publication 6: 130.
- Holland, S.M., and M.E. Patzkowsky, 1992. Sequence stratigraphy of the Middle and Upper Ordovician of the eastern United States, *Geological Society of America Abstracts with Programs* 24: 21.
- Patzkowsky, M., and S.M. Holland, 1992. Faunal extinction, migration, and stratigraphic sequences: Middle and Late Ordovician of North America, *Geological Society of America Abstracts with Programs* 24: 59.
- Sahagian, D.L., J.D. Collinson and S.M. Holland, 1991. Foreland basin evolution: Antarctic evidence for constant basin width during thrust front advance. *Eos* 72: 502.
- Holland, S.M., 1991. Paleobiologic and biostratigraphic implications of sequence stratigraphy. *Geological Society of America Abstracts with Programs* 23: A403.
- Holland, S.M., D.L. Sahagian and J.L. Isbell. 1990. Thermal modeling of the Transantarctic Foreland Basin: comparison with field data. *Eos* 71: 1599.
- Sahagian, D.L., and S.M. Holland, 1990. A eustatic curve based on a stable frame of reference: preliminary results. *Eos* 71: 1614.
- Holland, S.M. 1989. Sequence-based correlations: sorting through the complicated stratigraphy of the eastern U.S. Ordovician. *Geological Society of America Abstracts with Programs* 21: A80.
- * Holland, S.M. 1989. Shoaling cycles, depth-dependent fossil assemblages, and epiboles in the Upper Ordovician of the Cincinnati Arch. *Geological Society of America Abstracts with Programs* 21: 23.
- Kidwell, S.M., and S.M. Holland. 1989. Bioclastic fabrics: field categories and genetic implications. *Geological Society of America Abstracts with Programs* 21: A332.
- Holland, S.M. 1988. Distinguishing tectonic and eustatic controls on foreland basin stratigraphy. *Geological Society of America Abstracts with Programs* 20: A328.
- Holland, S.M., and M.E. Patzkowsky. 1988. Sedimentary cyclicity: a stopwatch with error bars. *Geological Society of America Abstracts with Programs* 20: A179.
- Holland, S.M. 1987. Effects of sea-floor exposure on the preservation of an Ordovician brachiopod assemblage. *Geological Society of America Abstracts with Programs* 19: 705.
- Holland, S.M. 1985. Biogenic and physical sedimentation inside the Maysvillian brachiopod *Platystrophia ponderosa*: biostratigraphic implications. *Ohio Journal of Science* 85: 20.