

Brief Curriculum Vitae – J. Wright Horton Jr., May 2011

Research Interests

Field and laboratory research on structural geology and tectonics, metamorphic and igneous rocks, impact craters and related materials, fault zones and fault rocks, mountain chains, Appalachian Piedmont and Blue Ridge geology, pre-Cretaceous terranes and buried basins beneath the Atlantic and Gulf coastal plains, and hydrogeology of fractured crystalline rocks, including geologic mapping, scientific drilling, geologic interpretation of geophysical data, and multidisciplinary collaborations

Professional Experience

Research Geologist, U.S. Geological Survey, Reston, Virginia, 1980–present
National Research Council Postdoctoral Associate, U.S. Geological Survey, Reston, Virginia, 1978–80
Assistant Professor of Geology, University of Southern Maine, Portland and Gorham, Maine, 1977–78

Education

Ph.D., University of North Carolina at Chapel Hill (Geology), 1977
M.S., University of North Carolina at Chapel Hill (Geology), 1974
B.S., Furman University (Geology), 1972

Awards and Honors

STAR Awards, U.S. Geological Survey, 1997, 2003, 2004, 2006
Superior Service Award, U.S. Department of the Interior, 1997
Elected *Fellow*, Geological Society of America, 1986
Special Achievement Award, U.S. Geological Survey, 1986
Awarded National Research Council (NRC) Postdoctoral Research Associateship, 1978–80
Elected *Full Member*, Sigma Xi - The Scientific Research Society, 1978

Projects

Coastal Basement Task Leader, USGS Geology of Atlantic Watersheds Project, 2008–present
Project Leader (2007–08) and Co-leader (2004–07), USGS Chesapeake Bay Impact Crater Project
Cooperating Principal Investigator, ICDP-USGS Chesapeake Bay Impact Structure Deep Drilling Project, 2004–09
Co-leader, Crater Materials Science Team, ICDP-USGS Chesapeake Bay Impact Structure Deep Drilling Project, 2004–09
Task Co-leader, USGS Chesapeake Bay Impact Crater Project, 2000–2004
Task Co-leader, Hydrogeologic framework of the Piedmont and Blue Ridge, North Carolina task of USGS Bedrock Regional Aquifer Systematics Study (BRASS) Project, 2000–2005
Staff Scientist, USGS Office of Eastern Regional Geology (2002)
Task Leader, Geology of the Washington-Baltimore Urban Area task of USGS Appalachian Regional Geology and Hydrology Project, 1998–2002
Project Chief, USGS Geology of the Mid-Atlantic Urban Corridor (GOMAC) Project, 1995–98
Project Chief, USGS Geology of the South-Central Virginia Piedmont Project, 1991–95
Assistant Branch Chief, USGS Branch of Eastern Regional Geology, 1984–85
Project Chief, USGS Raleigh Belt and Eastern Slate Belt Project, 1983–91
Geologic mapping, USGS projects in Charlotte (NC-SC) and Greenville (SC-GA) 1° × 2° quadrangles, 1980-89

Scientific Editor (Books)

The Sedimentary Record of Meteorite Impacts, Geological Society of America Special Paper 437, edited by K.R. Evans, J.W. Horton Jr., D.T. King Jr., and J.R. Morrow, 2008
Studies of the Chesapeake Bay impact structure—The USGS-NASA Langley corehole, Hampton, Virginia, and related coreholes and geophysical surveys, U.S. Geological Survey Professional Paper 1688, edited by J.W. Horton Jr., D.S. Powers, and G.S. Gohn, 2005
Forum on Geologic Mapping Applications in the Washington-Baltimore Urban Area, U.S. Geological Survey Circular 1148, edited by J.W. Horton Jr., and E.T. Cleaves, 1997

The Geology of the Carolinas, Carolina Geological Society Fiftieth Anniversary Volume, University of Tennessee Press, edited by J.W. Horton Jr. and V.A. Zullo, 1991
Mélanges and Olistostromes of the U.S. Appalachians, Geological Society of America Special Paper 228, edited by J.W. Horton Jr. and N. Rast, 1989

Editorial Boards

Associate Editor, *Geological Society of America Bulletin*, 1988–90 and 1991–93
Editorial Board, *South Carolina Geology*, 1989–97

Committees and Review Panels

NAGT-USGS Internship Review Panel, 2011
Science Review Committee, Barringer Family Fund for Meteorite Impact Research, 2008
Argon Geochronology Laboratory Advisory Committee, USGS Geology Discipline, 2006–07
Organizing Committee for ICDP-USGS Workshop on Deep Drilling in the Central Crater of the Chesapeake Bay Impact Structure, Virginia, USA, Herndon, VA, 2003
Co-chair, Science Language Technical Team Subgroup on Metamorphic Rocks, North American Geologic Map Data Model (NAGDM), 2001–04
Membership Committee, Geological Society of America, 2000–03
Eastern Region Publications Steering Committee member, USGS Geologic Division, 1998
Publications Committee, Geological Society of America, 1993–95
U.S. National Committee for IGCP Project 233, Terranes in the Circum-Atlantic Paleozoic Orogens, 1986–91
Science Advisory Committee, USGS Geologic Division, 1988–90
Committee on Penrose Conferences, Geological Society of America, 1983–85
North Carolina State Geologic Map Advisory Committee, 1983–85
Working Group E4 of Geodynamics Continental-Ocean Transects Program, 1982–87

Organizing Conferences and Special Sessions

Co-convenor of Topical Session, *Exploring Subsurface Terranes and Buried Basins of Eastern and Central North America - Geology, Geophysics, and Geochronology*, Geological Society of America Annual Meeting, 2011
Co-convenor of Topical Session, *Tectonic Significance of Buried Terranes of the Atlantic and Gulf Coastal Plains*, Geological Society of America Northeastern/Southeastern Sections Meeting, 2010
Technical Program Co-chair, Geological Society of America Northeastern/Southeastern Sections Joint Meeting, 2010
Co-convenor of Symposium, *Drilling of Impact Structures*, Conference on Large Meteorite Impacts and Planetary Evolution IV, Vredefort Dome, South Africa, 2008
Co-convenor of Symposium, *The Chesapeake Bay Impact Structure: Formation and Consequences*, American Association for the Advancement of Science Annual Meeting, 2005
Co-convenor of SEPM Research Conference, *The Sedimentary Record of Meteorite Impacts*, 2005
Co-convenor of Topical Session, *Peri-Gondwanan Terranes of the Appalachians*, Geological Society of America Northeastern/Southeastern Sections Meeting, 2004
Co-convenor, *Forum on Geologic Mapping Applications in the Washington-Baltimore Urban Area*, sponsored by U.S. Geological Survey and Maryland Geological Survey, 1997

Recent Invited Conferences

Conference on *Large Meteorite Impacts and Planetary Evolution IV*, Vredefort Dome, South Africa, 2008
ICDP-ESF Conference on *Marine Impacts and Environmental Consequences*, Svalbard, Norway, 2007
Symposium on *Impact - From the Nano- to the Macro-scale*, 17th Annual Goldschmidt Conference, Cologne, Germany, keynote speaker, 2007
Geological Society of America *Field Forum on Marine Impact Craters on Earth*, Wetumpka, AL, 2007
ICDP-IODP Workshop on *Scientific Drilling in the Chicxulub Impact Structure*, Potsdam, Germany, 2006
Lockne 2006 Workshop on *Impact Craters as Indicators for Planetary Environmental Evolution and Astrobiology*, Östersund, Sweden, 2006
Workshop on *The Role of Volatiles and Atmospheres on Martian Impact Craters*, Laurel, MD, 2005

International Continental Scientific Drilling Program (ICDP) Conference on *Continental Scientific Drilling 2005: A Decade of Progress and Challenges for the Future*, Potsdam, Germany, 2005
Workshop on Research *Frontiers in Appalachian Geology and Tectonics: An EarthScope Perspective*, National Science Foundation, Arlington, VA, 2004

Recent Invited Lectures

Furman University, Greenville, SC, 2011
Lunar and Planetary Institute, Houston, TX, 2009
Brown University, Providence, RI, 2008
Rutgers University, New Brunswick, NJ, 2007
Geological Society of Washington, DC, 2007
Smithsonian Institution, National Museum of Natural History, 2003

Advising Graduate Students and Postdoctoral Fellows

Ph.D. dissertation committee for A.J. Merschat, University of Tennessee, 2009
Ph.D. dissertation examiner for L. Coney, University of the Witwatersrand, South Africa, 2009
Research advisor for Mendenhall Postdoctoral Fellow M.L. Malinconico, USGS, 2006–08
M.S. thesis committee for R. Nardini, George Washington University, 2002
M.S. thesis committee for P.J. Bradley, North Carolina State University, 1996
Research advisor for National Research Council Postdoctoral Associate P.E. Sacks, USGS, 1990–91
M.S. thesis committee for D.E. Blake, North Carolina State University, 1986

Reviewer

U.S. National Science Foundation, National Park Service, American Chemical Society Petroleum Research Fund, Geological Survey of Canada, Geological Society of America Map and Chart Series, Joint Oceanographic Institutions U.S. Science Support Program
Journals: *American Journal of Science*, *Earth Science Reviews*, *Geochimica et Cosmochimica Acta*, *Geological Society of America Bulletin*, *Journal of Geology*, *Tectonics*, *Meteoritics and Planetary Science*, *Ohio Journal of Science*, *Science*, *South Carolina Geology*, *Southeastern Geology*, *Tectonics*

Recent Outreach

Mentor, John Mann Mentors in Applied Hydrogeology Program, Geological Society of America, 2011
U.S. Sponsor for Fulbright Visiting Scholar, 2007
Appeared in Discovery Science Channel mini-series, *Faces of Earth*, 2007
Led field trips for National Park Service (Piedmont geology near Kings Mountain, NC-SC, 2000), NC DENR (Piedmont hydrogeology near Reidsville, NC, 2001); Chesapeake Bay impact crater drill cores (repeatedly, 2006-11)
Technical Advisor for USGS educational video, *The Southern Appalachians: A Changing World*, 2001
Interviews for Baltimore Sun, Bay Weekly, Discovery News, Richmond Times-Dispatch, Smithsonian Magazine, Virginian Pilot, WTOP Radio

Professional Organizations

American Association for the Advancement of Science, American Geophysical Union, Carolina Geological Society (*President*, 1981–82), Geological Society of America (*Fellow*, 1986), Hydrogeology Division, Planetary Geology Division), Geological Society of Washington (*Council Member*, 2009–10), Impact Field Studies Group, Mars Crater Consortium, Meteoritical Society, Sigma Xi - The Scientific Research Society, SEPM (Society for Sedimentary Geology)

Certifications

South Carolina Registered Professional Geologist
Virginia Certified Professional Geologist

Publications

Listed separately