

CURRICULUM VITAE

Jenna Catherine Hill

Personal Information

Address: Department of Marine Science
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Birth date: 27. September 1977
Citizenship: USA

Education:

Ph.D. 2007 “Continental margin architecture: Sea level and climate”
Earth Sciences, Scripps Institution of Oceanography, University of California, San Diego

B.A. 1999 Geology, Environmental Studies, Oberlin College, Oberlin, OH

Awards

2003 Honorable Mention, NSF MARGINS Student Presentation, AGU Fall Meeting
2003-2007 ARCS Foundation Scholarship
2002 Outstanding Student Paper Award, AGU Fall Meeting
2002 UCSD Art Proceeds Fellowship

Employment

2008-present Assistant Professor of Marine Science
Coastal Carolina University, Conway, SC

2007-2008 Post-doctoral Researcher/Lecturer
Burroughs & Chapin Center for Marine and Wetland Studies
Coastal Carolina University, Conway, SC

2003 Teaching Assistant, Sedimentary Stratigraphy
Scripps Institution of Oceanography

2001-2007 Graduate Researcher, Geosciences Research Division
(Advisor: Neal Driscoll)
Scripps Institution of Oceanography
University of California, San Diego

1999-2001 U.S. Geological Survey Intern
Woods Hole Field Center
Responsibilities: seafloor mapping, data processing, data archival publication

1998 Teaching Assistant, Physical Geology
Oberlin College Geology Department, Oberlin, OH

- 1998-1999 Recycling Program Coordinator
Oberlin College Department of Environmental Health and Safety
Oberlin, OH
- 1997-1999 Grading Assistant
Oberlin College Geology Department, Oberlin, OH
- 1997-1998 Howard Hughes Environmental Education Teaching Fellow
Meister Road Elementary School, Lorain, OH
- 1997 Enos B. Mills Nature Education Intern
Badlands National Park, Interior, SD

Membership in Professional Societies

American Geophysical Union

Oceanographic Research Cruises

My responsibilities on research cruises ranged from being a data watchstander/coring assistant to conducting independent research.

- 2007-2011 Numerous day cruises on R/V Privateer, South Carolina, side-scan sonar, multibeam sonar, and seismic reflection
- 11/08 USGS Salton Sea, California, multibeam sonar
- 06/07 NOAA Ship Nancy Foster, South Carolina, seismic reflection and side-scan sonar
- 12/06 MV Moonlighting, Papua New Guinea, side-scan sonar
- 08/06 NOAA Ship Nancy Foster, South Carolina, seismic reflection and side-scan sonar
- 07/06 R/V LeConte, Lake Tahoe, seismic reflection and side-scan sonar
- 07/04 R/V Cape Hatteras, Mid Atlantic outer shelf gas blowout features, piston/gravity coring, and AUV surveys
- 01/04 R/V Melville, Gulf of Papua, seismic reflection and piston coring
- 09/03 R/V Sproul, Rose Canyon fault zone, seismic reflection
- 07/03 R/V Bjarni Sæmundsson, Tjornes Fracture Zone, seismic reflection
- 03/03 R/V Melville, Southern Atlantic paleocirculation, Orange River delta survey, piston/gravity coring and seismic reflection
- 11/02 R/V Sproul, Rose Canyon fault zone, seismic reflection
- 11/02 R/V Saikon, La Jolla nearshore survey, seismic reflection
- 08/02 USCG Cutter Healy, Chukchi Sea tectonics and relative sea level, piston/gravity coring and seismic reflection
- 07/02 R/V LeConte, Lake Tahoe, seismic reflection and vibracoring
- 06/02 USCG Cutter Healy, Bering Sea paleoclimate studies, and seismic reflection
- 02/02 R/V Sproul, Rose Canyon fault zone, seismic reflection
- 11/01 R/V Thomas Thompson, Eel margin research, piston coring
- 11/99 R/V Atlantic Surveyor, South Carolina nearshore survey, seismic reflection

Research Interests

Nearshore to outer continental shelf sedimentation, stratigraphy, tectonic processes, paleoclimate, relative sea level change, fluvial morphology and sedimentation, onshore/offshore interactions

External Grants

Hill, J.C., Xu, K., and Wright, E., 2010-2012. Acquisition of instrumentation for the sediment analysis laboratory at Coastal Carolina University, NSF EAR/IF Program, \$110,227.

Viso, R.F., **Hill, J.C.**, Lewis, B., McCoy, C.A., Peterson, R., 2009-2011. Submarine groundwater discharge to Long Bay, SC: Preliminary assessment of land use impact, geological controls and nutrient loads, South Carolina Sea Grant, \$152,220.

Publications

Hill, J.C. and Driscoll, N.W., Evidence for iceberg discharge to the Chukchi shelf during the Younger Dryas, *Quaternary Research*, doi: 10.1016/j.yqres.2010.03.008

Hill, J.C., Gayes, P.T., Driscoll, N.W., Johnstone, E.A., and Sedberry, G.R., 2008. Iceberg scours along the southern U.S. Atlantic margin, *Geology*, 36: 447-450.

Hill, J.C. and Driscoll, N.W., 2008. Paleodrainage on the Chukchi shelf reveals sea level history and meltwater discharge, *Marine Geology*, 254: 129-151.

Newman, K.R., Cormier, M., Weissel, J.K., Driscoll, N.W., Kastner, M., Solomon, E.A., Robertson, G., **Hill, J.C.**, Singh, H., Camilli, R. and Eustice, R., 2007. Active methane venting observed at giant seafloor pockmarks along the U.S. mid-Atlantic shelf break, *Earth and Planetary Science Letters*, 267: 341-352.

Hill, J.C., Driscoll, N.W., Brigham-Grette, J., Donnelly, J.P., Gayes, P.T., and Keigwin, L.D., 2007. New evidence for high discharge to the Chukchi shelf since the Last Glacial Maximum, *Quaternary Research*, 68: 271-279.

Hill, J.C., Driscoll, N.W., Weissel, J.K., and Goff, J.A., 2004, Large scale elongated gas blowouts along the U.S. Atlantic margin, *Journal of Geophysical Research*, 109:B9, doi: 10.1029/2004JB002969.

Published Abstracts

**Denotes mentored student author*

Wright, E.E., **Hill, J.C.**, Harris, M.S., and Urban, E., 2011. GPR stratigraphy of an eolian dune field in Horry County, SC, *Geological Society of America Abstracts with Programs*, Vol. 43, No. 2, p. 76

Klotsko, S.A.*, **Hill, J.C.**, Gayes, P.T., Viso, R.F., Alexander, C., and R. McFall, G., 2010. The Influence of geologic framework on habitat and sediment distribution in Grays Reef National Marine Sanctuary, *Eos Trans. AGU*, 91 (26), Ocean Sci. Meet. Suppl., Abstract GO45A-05

Hill, J.C., Gayes, P.T., and Viso, R.F., 2010. Structural controls on sediment distribution along the inner shelf of South Carolina, *Eos Trans. AGU*, 91 (26), Ocean Sci. Meet. Suppl., Abstract GO25A-16

Wright, E.E., Harris, M.S., **Hill, J.C.**, and Xu, K., 2010. Stratigraphic architecture of the Conway paleo-barrier system of northeastern, South Carolina, *Geological Society of America Abstracts with Programs*, Vol. 42, No. 1, p. 70

Miller, S.A.*, McCoy, C.A., Gayes, P.T., Viso, R.F., and **Hill, J.C.**, 2009. Geological impacts on and sediment transport and beach erosion in Fire Island, New York, *3rd International Conference on Aquatic Resources*, November 17-19, Alexandria, Egypt.

Viso, R., Gayes, P., **Hill, J.C.**, and McCoy, C., 2009. Geophysical Techniques to Investigate Linkages Between Coastal Geology and Submarine Groundwater Discharge, *3rd International Conference on Aquatic Resources*, November 17-19, Alexandria, Egypt.

Hill, J.C., Gayes, P.T., McCoy, C., and Viso, R., 2008. Imaging the changing shoreface along South Carolina's Grand Strand, *Eos Trans. AGU*, 89 (53), Fall Meet. Suppl., Abstract OS43B-1290

- Hill, J.C., Gayes, P.T., Driscoll, N.W., Johnstone, E.A., and Sedberry, G.R., 2007. Iceberg scours offshore of South Carolina, *Eos Trans. AGU*, 88 (52), Fall Meet. Suppl., Abstract OS53A-0982
- Hill, J.C., Driscoll, N.W., Phillips, R.L., Donnelly, J.P., Brigham-Grette, J., Gayes, P.T. and Keigwin, L.D., 2006, A large incised valley on the Chukchi shelf: Implications for high discharge, sea level fluctuations and climatic variations since the LGM, *Eos Trans. AGU*, 87 (36), Ocean Sci. Meet. Suppl., Abstract OS16A-15
- Hill, J.C. Incision and downcutting on glaciated margins: Out of phase with sea level cycles? *Teleconnections Between Source and Sink in Sediment Dispersal Systems*, NSF-MARGINS Theoretical-Experimental Institute.
- Hill, J.C., Driscoll, N.W., and Donnelly, J.P., 2005, Holocene record of deglaciation on the Chukchi shelf, offshore NW Alaska, *Eos Trans. AGU*, 86 (52), Fall Meet. Suppl., Abstract OS51B-0567
- Newman, K., Cormier, M., Driscoll, N., **Hill, J.**, Kastner, M. Singh, H., and Weissel, J., 2005, Geophysical and Geochemical Evidence For Methane Venting at Large Gas Blowouts Along the US Mid-Atlantic Shelf Edge, *Eos Trans. AGU*, 86(52), Fall Meet. Suppl., Abstract OS32A-05
- Hill, J.C., 2005. New constraints on Alaskan drainage from a large incised valley on the Chukchi shelf: Implications for tectonic and climatic evolution of NW Alaska, *The Bering Strait, Rapid Climate Change and Land Bridge Paleoecology*, JOI Bering Sea Drilling Workshop.
- Hill, J.C., Driscoll, N.W., Weissel, J.K., Kaster, M., Singh, H., Cormier, M., Camilli, R., Eustice, R., Lipscomb, R., McPhee, N., Newman, K., Robertson, G., Solomon, E., and Tomanka, K., 2004, A potential link between fluid expulsion and slope stability: Geochemical anomalies measured in the gas blowouts along the U.S. Atlantic Margin provide new constraints on their formation, *Eos Trans. AGU*, 85(47), Fall Meet. Suppl., Abstract OS23B-1307
- Newman, K., Cormier, M., Weissel, J., Driscoll, N., Kastner, M., Singh, H., Camilli, R., Eustice, R., McPhee, N., Ahern, J., **Hill, J.**, Robertson, G., Solomon, E., and Tomanka, K., 2004, A Detailed Near-bottom Survey of Large Gas Blowout Structures Along the US Atlantic Shelf Break Using the Autonomous Underwater Vehicle (AUV) SeaBED, *Eos Trans. AGU*, 85(47), Fall Meet. Suppl., Abstract OS23B-1312
- Hill, J.C., Driscoll, N.W., Brigham-Grette, J., and Lundeen, Z., 2003, Large incised channels on the Chukchi Shelf provide new constraints on onshore drainage: Implications for tectonic and climatic evolution of NW Alaska, *Eos Trans. AGU*, 84(46), Fall Meet. Suppl., Abstract OS52B-0911
- Brigham-Grette, J, Driscoll, N., Keigwin, L., Lundeen, Z., **Hill, J.**, Cook, M., and Donnelly, J., 2003, Beringian sea level and marine climate history: Investigations into regional & global impacts, *Eos Trans. AGU* 84(46), Fall Meet. Suppl., Abstract PP51C-0939
- Hill, J.C., Driscoll, N.W., Weissel, J.K., and Goff, J.A., 2002, Large-Scale Elongated Gas Blowouts, Offshore Virginia/North Carolina: Process and Product, *Eos Trans. AGU*, 83(47), Fall Meet. Suppl., Abstract OS71C-0305

Miscellaneous Publications

- Hill, J.C., Schwab, W.C., Dadisman, S., Danforth, W.W., Denny, J.F., O'Brien, T.F., and Parolski, K., 2000, Archive of CHIRP data, collected during USGS cruise ATSV 99044 Myrtle Beach, South Carolina, 29 October - 23 November 1999: U.S. Geological Survey Open-File Report 00-040, 9 CD-ROMs.
- Hill, J.C., Schwab, W.C., Dadisman, S.V., Danforth, W.W., Denny, J.F., O'Brien, T.F., and Parolski, K.F., 2000, Archive of boomer subbottom data, collected during USGS cruise ATSV 99044 Myrtle

- Beach, South Carolina, 29 October - 12 November 1999: U.S. Geological Survey Open-File Report 00-153, 18 CD-ROMs.
- Hill, J.C., Schwab, W.C., and Danforth, W.W., 2001, Archive of sidescan-sonar data and Differential Geographic Positioning System navigation data, collected during USGS cruise SEAX 96004, New York Bight, 1 May- 9 June 1996: U.S. Geological Survey Open-File Report 01-095, 12 DVD-ROMs.
- Hill, J.C., Schwab, W.C., and Foster, D.S., 2001, Archive of boomer subbottom data, collected during USGS cruise DIAN 96040, Fire Island, New York, 4-14 September 1996: U.S. Geological Survey Open-File Report 00-467, 9 CD-ROMs.
- Hill, J.C., Schwab, W.C., and Foster, D.S., 2001, Archive of datasonics SIS-1000 CHIRP subbottom data, collected during USGS cruise DIAN 96040, Fire Island, New York, 4-24 September 1996: U.S. Geological Survey Open-File Report 00-366, 6 CD-ROMs.
- Hill, J.C., Schwab, W.C., and Foster, D.S., 2001, Archive of datasonics SIS-1000 CHIRP subbottom data, collected during USGS cruise SEAX 95007, New York Bight, 7-25 May 1995: U.S. Geological Survey Open-File Report 01-097, 2 DVD-ROMs.
- Hill, J.C., Schwab, W.C., and Foster, D.S., 2001, Archive of datasonics SIS-1000 CHIRP subbottom data, collected during USGS cruise SEAX 96004, New York Bight, 1 May- 9 June 1996: U.S. Geological Survey Open-File Report 01-096, 3 DVD-ROMs.
- Hill, J.C., Schwab, W.C., and Foster, D.S., 2001, Archive of water gun subbottom data, collected during USGS cruise SEAX 96004, New York Bight, 1 May - 9 June, 1996: U.S. Geological Survey Open-File Report 00-396, DVD-ROM.
- Hill, J.C., Schwab, W.C., and Foster, D.S., 2001, Archive of water-gun subbottom data, collected during USGS cruise SEAX 95007, New York Bight, 7-25 May 1995: U.S. Geological Survey Open-File Report 01-157, DVD-ROM.
- Hill, J.C., Schwab, W.C., and Foster, D.S., 2000, Archive of boomer and sparker subbottom data, collected during USGS cruise DIAN 97011, Long Island, New York inner shelf--Fire Island, New York, 5-26 May 1997: U.S. Geological Survey Open-File Report 00-241, 17 CD-ROMs.
- Hill, J.C., Schwab, W.C., and Foster, D.S., 2000, Archive of boomer subbottom data, collected during U.S. Geological Survey cruise SEAX 96004, New York Bight, 1 May-9 June 1996: U.S. Geological Survey Open-File Report 00-340, DVD-ROM.
- Hill, J.C., Schwab, W.C., and Foster, D.S., 2000, Archive of datasonics SIS-1000 CHIRP subbottom data, collected during USGS cruise DIAN 97011, Long Island, New York, Inner Shelf--Fire Island, New York, 5-26 May 1997: U.S. Geological Survey Open-File Report 00-242, 3 CD-ROMs.
- Hill, J.C., Thieler, E.R., Foster, D.S., Swift, B.A., and O'Brien, T.F., 2000, Archive of boomer and sparker subbottom data, collected during USGS cruise DIAN 97032 Long Island, New York, Inner Shelf--Fire Island, New York, 24 September - 19 October, 1997: U.S. Geological Survey Open-File Report 00-142, CD-ROM.
- Hill, J.C., Thieler, E.R., Foster, D.S., Swift, B.A., and O'Brien, T.F., 2000, Archive of datasonics SIS-1000 CHIRP subbottom data, collected during USGS cruise DIAN 97032, Long Island, New York inner shelf--Fire Island, New York, 24 September - 29 October 1997: U.S. Geological Survey Open-File Report 00-142, 15 CD-ROMs.
- Hill, J.C., Thieler, E.R., Foster, D.S., Swift, B.A., and O'Brien, T.F., 2000, Archive of datasonics SIS-1000 CHIRP subbottom data, collected during USGS cruise DIAN 97032, Long Island, New York inner

- shelf--Fire Island, New York, 25 September - 19 October 1997: U.S. Geological Survey Open-File Report 00-152, 11 CD-ROMs.
- Hill, J.C., Thieler, E.R., Nichols, D.R., and Williams, G.F., 2001, Archive of boomer subbottom data, collected during USGS cruise FERL 98009, New York Bight, Raritan Bay, Long Island, 26 May - 2 June 1998: U.S. Geological Survey Open-File Report 01-047, 2 CD-ROMs.
- Thieler, E.R., **Hill, J.C.**, Brooks, G., Gutierrez, B., Irwin, B.J., and Nichols, D.R., 2001, Archive of datasonics SIS-1000 CHIRP subbottom data, collected during USGS cruise MGNM 99023, southern Long Island, New York inner shelf and Hudson Shelf Valley, 26-31 July 1999: U.S. Geological Survey Open-File Report 00-273, 5 CD-ROMs.
- Thieler, E.R., **Hill, J.C.**, Brooks, R., Gutierrez, B., Irwin, B.J., and Nichols, D.R., 2001, Archive of boomer subbottom data, collected during USGS cruise MGNM 99023, southern Long Island, New York inner shelf and Hudson Shelf Valley, 26-31 July 1999: U.S. Geological Survey Open-File Report 00-274, 6 CD-ROMs.
- Hammar-Klose, E.S., **Hill, J.C.**, Schwab, W.C., and Thieler, E.R., in press, Archive of sidescan-sonar data and Differential Geographic Positioning System navigation data, collected during USGS cruise DIAN97032 Long Island, New York Inner Shelf -- Fire Island, New York, 25 September - 19 October 1997: U.S. Geological Survey Open-File Report 00-440, DVD-ROM.
- Capone, M., Hammar-Klose, E.S., **Hill, J.C.**, and Schwab, W.C., 2002, Archive of sidescan-sonar data and Differential Geographic Positioning System navigation data, collected during USGS cruise DIAN 97011 Long Island, New York inner shelf--Fire Island, New York, 5 May-26 May 1997: U.S. Geological Survey Open-File Report 02-120, 6 DVD-ROMs.
- Dadisman, S.V., **Hill, J.C.**, and Schwab, W.C., 2001, Archive of boomer subbottom data, collected during USGS MGNM 00014, central South Carolina, 13-30 March 2000: U.S. Geological Survey Open-File Report 00-463, 4 CD-ROMs.
- Dadisman, S.V., **Hill, J.C.**, and Schwab, W.C., 2001, Archive of datasonics SIS-1000 CHIRP subbottom data, collected during USGS cruise MGNM 00014, central South Carolina, 13-30 March 2000: U.S. Geological Survey Open-File Report 00-462, 4 CD-ROMs.
- Foster, D.S., Schwab, W.C., Danforth, W.W., Denny, J.F., **Hill, J.C.**, Irwin, B.J., Nichols, D.R., and O'Brien, T.F., 1999, Archive of 15 inch³ water gun data, collected during USGS cruise ALPH 98013 New York Bight, 10-22 September 1998: U.S. Geological Survey Open-File Report 99-395, CD-ROM.
- Foster, D.S., Schwab, W.C., Danforth, W.W., Denny, J.F., **Hill, J.C.**, Irwin, B.J., Nichols, D.R., and O'Brien, T.F., 1999, Archive of datasonics SIS-1000 CHIRP subbottom data, collected during USGS cruise ALPH 98013 New York Bight, 8 September - 23 October, 1998: U.S. Geological Survey Open-File Report 99-037, 9 CD-ROMs.
- Foster, D.S., Schwab, W.C., Danforth, W.W., Denny, J.F., **Hill, J.C.**, Irwin, B.J., Nichols, D.R., and O'Brien, T.F., 1999, Archive of sparker data, collected during USGS cruise ALPH 98013 New York Bight, 10-22 September 1998: U.S. Geological Survey Open-File Report 99-436, 6 CD-ROMs.

Languages

French, German, Spanish