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Education

Ph.D. Earth Sciences, University of California Santa Cruz, March 1998. Advisor, Gary Griggs
B.A. Geology, Colgate University, Hamilton, New York, May 1993. Magna cum Laude
and High Honors.

Professional Experience

Assistant Professor University of North Carolina-Chapel Hill, Department of Geological Sciences Curriculum for the Environment and Ecology	2010 – present[^]
Visiting Assistant Professor Duke University, Earth and Ocean Sciences Division University of North Carolina-Chapel Hill, Department of Geological Sciences	AY2009-2010
Assistant Professor University of Virginia, Department of Environmental Sciences	2008 – 2010⁺
Visiting Scientist U.S. Geological Survey, Woods Hole Science Center, Woods Hole, MA	AY2005-2006[#]
Assistant Professor Oberlin College, Department of Geology, Oberlin, OH	2002 - 2007
Research Associate University of South Florida, College of Marine Science/USGS Center for Coastal Geology, St. Petersburg, FL	2000 - 2002
Postdoctoral Scholar Woods Hole Oceanographic Institution, Department of Geology and Geophysics, Woods Hole, MA	1998 - 2000
Instructor University of California Santa Cruz, Department of Earth Science, Santa Cruz, CA	1998
Graduate Student Researcher/Research Assistant University of California Santa Cruz, Department of Earth Science, Santa Cruz, CA	1993 - 1998

Honors and Awards

Mellon-8 Consortium Sabbatical Fellowship Award, September 2006.
W.M. Keck Foundation Fellowship in the Natural Sciences, May 2005.

[^]parental leave Fall 2011

⁺parental leave Fall 2008

[#]junior sabbatical at Oberlin College—spent learning and developing computational modeling techniques to expand the approaches used in my research and teaching.

Nominated to Project Kaleidoscope Faculty for the 21st Century, July 2004.
Meyers Oceanographic Trust Research Award, April 1997.
ARCS Scholarship, Achievement Rewards for College Scientists Foundation, June 1996.
Meyers Oceanographic Trust Research Award, March 1995.
William Beye Heald Scholarship, Long Marine Laboratory, UC Santa Cruz, April 1994.
Norma Vergo Prize in Geology, Department of Geology, Colgate University, May 1993.

Publications

Books and Chapters

- Moore, L.J.**, Duran Vinent, O., Walters, D., and Goldstein, E.B., in press. Ecomorphodynamic feedbacks and couplings between landscape units affect barrier island response to changing climate. In: *Coastal Sediments 2015*, edited by P. Wang and J. D. Rosati, World Scientific, Miami, FL, USA.
- Smith, M. D., Murray, A.B., Gopalakrishnan, S., Keeler A. G., Landry, C.E., McNamara, D., **Moore, L.J.**, in press. Geoengineering Coastlines? From accidental to intentional. In: Baztan, J., Ed. *Twenty one Solutions for Twenty-first Century Coastal Zone Management*, United Nations. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2403945 [Top Ten Download list on Social Science Research Network, March 2014]
- Moore, L.J.**, and Fenster, M.F., in press. A Synthesis of Barrier Island Geology and Geomorphology, In: McGlathery, K.J. and Wiberg, P., eds., *Virginia Eastern Shore, LTER- VCR Research Synthesis Volume*. Springer.
- Guy, D.E. and **Moore, L.J.**, 2011. Geologic Setting and Processes along Lake Erie from Fairport Harbor to Marblehead. Department of Natural Resources, Ohio Division of the Geological Survey, Cleveland, OH, 78p.
- Moore, L. J.**, J. H. List, S. J. Williams, and *K. Patsch, 2011. Barriers on the brink: the complex intertwined roles of geologic framework, sediment availability and sea-level rise in island evolution. In: *Coastal Sediments 2011*, edited by P. Wang, J. D. Rosati and T. M. Roberts, pp. 272-285, World Scientific, Miami, FL, USA.
- *Wolner, C. V., **L. J. Moore**, D. R. Young, S. T. Brantley, and S. N. Bissett, 2011. Dune builders vs. overwash maintainers: the potential influence of an ecomorphodynamic overwash feedback on barrier island response to climate change. In: *Coastal Sediments 2011*, edited by P. Wang, J. D. Rosati and T. M. Roberts, pp. 258-271, World Scientific, Miami, FL, USA.
- Moore, L.J.**, List, J.H., Williams, S.J. and Stolper, D., 2007, Modeling Barrier Island Response to Sea-Level Rise. In: Kraus, N. and Rosati, J., (eds.), In: *Coastal Sediments 2007*, American Society of Civil Engineers, v. 3, pp. 1153-1164.
- Moore, L.J.**, Jol, H.M., Kaminsky, G.M., and Kruse, S., 2003. Severe winter storm effects revealed in stratigraphy of prograding coastal barrier, Southwest Washington, USA. In: Davis, R.A., Sallenger, A., and Howd, P., (eds.), In: *Coastal Sediments 2003*. American Society of Civil Engineers, pp. 1-9.
- Moore, L.J.**, and Griggs, G.B., 1998. Measuring shoreline erosion: Techniques, accuracy and strategy. In: Magoon, O.T., Converse, H., Baird, B., Miller-Henson, M., (eds.), In: *California and the World Ocean '97*, American Society of Civil Engineers, Reston, VA, pp.719-730.

Benumof, B., **Moore, L. J.**, and Griggs, G.B., 1998. Coastal erosion: The state of the problem and the problem of the state. In: Magoon, O.T., Converse, H., Baird, B., Miller-Henson, M., (eds.), In: *California and the World Ocean '97*, American Society of Civil Engineers, Reston, VA, pp. 505-514.

Benumof, B.T., **Moore, L.J.**, and Griggs, G.B., 1998. FEMA and state-of-the-art coastal erosion mapping along the San Diego County coastline, California. In: Ewing, L. and Sherman, D. (eds.), In: *California's Coastal Natural Hazards*. USC Sea Grant Program, pp.719-730.

Journal Articles Nearing Submission

*Rogers, L., **Moore, L.J.**, *Goldstein, E.B., Hein, C., Lorezon-Trueba, J., and Ashton, A. Anthropogenic controls on overwash deposition: Evidence and consequences. In preparation for submission to the *Journal of Geophysical Research-Earth Surface*.

*Jass, T.J., **Moore, L.J.**, *Goldstein, E.B., Bruno, J.B., Young, D.R., Environmental controls on the growth of dune-building grasses and the effect of plant morphology on dune shape. In preparation for submission to *PLOS One*.

Moore, L.J., Ruggiero, P. and *Duran, O., Feedbacks between vegetation, accretion and sediment transport give rise to formation of multiple dune ridges. In preparation for submission to *Geology*.

Journal Articles in Revision

Pelletier, J.D., Murray, A.B., Pierce, J.L., Bierman, P.R., Breshears, D.D., Crosby, B.T., Ellis, M., Foufoula-Georgiou, E., Heimsath, A.M., Houser, C., Lancaster, N., Marani, M., Merritts, D.J., **Moore, L.J.**, Pederson, J.L., Poulos, M.J., Rittenour, T.M., Rowland, J.C., Ruggiero, P., Ward, D.J., Whipple, K.X., Wickert, A.D., Yager, E.M., in revision, Forecasting the response of Earth's surface to future climatic and land-use changes: An assessment. *Earth's Future*.

*Goldstein, E.B. and **Moore, L.J.**, in revision, Stability, bistability, and periodic behavior in a one-dimensional model of coastal foredune height. *Geophysical Research Letters*.

Peer-Reviewed Journal Articles

*Brenner, O.T., **Moore, L.J.** and Murray, A.B., *Accepted*. The complex influences of backbarrier deposition, substrate slope and underlying stratigraphy in barrier island response to sea level rise: Insights from the Virginia Barrier Islands, Mid-Atlantic Bight, U.S.A. Submitted to *Geomorphology*, June 2014.

* Durán Vinent, O. and **Moore, L.J.**, 2015. Bistability of barrier islands induced by biophysical interactions. *Nature Climate Change*. 5,158–162
doi:10.1038/nclimate2474.

*Walters, D., **Moore, L.J.**, *Duran, O., Fagherazzi, S., and Mariotti, G. 2014. Interactions between barrier islands and backbarrier marshes affect island system response to sea level rise: Insights from a coupled model. *Journal of Geophysical Research—Earth Surface*. DOI: 10.1002/2014JF003091

*Johnson, J., **Moore L.J.**, Ells, K., Murray, B., Adams, P., Jaeger, J., MacKensize, R. 2014. Recent shifts in coastline change and shoreline stabilization linked to storm climate change. *Earth Surface Processes and Landforms*. DOI: 10.1002/esp.3650

- *Brantley, S.T., *Bissett, S.N., Young, D.R., *Wolner, C.V., **Moore, L.J.**, 2014. Barrier island morphology and sediment characteristics affect the recovery of dune building grasses following storm-induced overwash. *PLOS One*. DOI: 10.1371/journal.pone.0104747
- Moore, L.J.**, *Patsch, K., Williams, S.J., and List, J.L., 2014. Barrier Islands Poised for Geomorphic Threshold Crossing in Response to Rapid Sea-Level Rise: Insights from Numerical Model Experiments, Chandeleur Islands, Louisiana, USA, *Marine Geology*. DOI: 10.1016/j.margeo.2014.05.022.
- Moore, L.J.**, McNamara, D.E., Murray, A.B, and *Brenner, O., 2013. Recent Shifts in Large-Scale Coastline Erosion Patterns Linked to Storm Climate Change. *Geophysical Research Letters*, 40, DOI:10.1002/2013GL05731.
- * Durán Vinent, O. and **Moore, L.J.**, 2013. Vegetation controls on the maximum size of coastal dunes. *Proceedings of the National Academy of Sciences*, DOI:10.1073/pnas.1307580110.
- *Grady, A.E., **Moore, L.J.**, Storlazzi, C., Elias, E., Reidenbach, M., 2013. The potential influence of future sea-level rise and changes in fringing reef morphology on gradients in alongshore sediment transport. *Geophysical Research Letters*. V. 40, n. 12, pp. 3096-3101. DOI: 10.1002/grl.50577
- *Wolner, C.V., **Moore, L.J.**, Young, D.R., Brantley, S.T., Bissett, S.N., McBride, R.A., 2013. Ecomorphodynamic feedbacks and barrier island response to disturbance: Insights from the Virginia Barrier Islands, Mid-Atlantic Bight, USA, *Geomorphology*, v. 199, pp. 115-128, DOI:10.1016/j.geomorph.2013.03.035.
- Moore, L.J.**, List, J.H., Williams, S.J. and Stolper, D., 2010, Complexities in barrier island response to sea-level rise: Insights from model experiments. *Journal of Geophysical Research—Earth Surface*, DOI:10.1029/2009JF001299.
- Moore, L.J.**, Ruggiero, P.R. and List, J., 2006. Comparing high water line and datum-based shorelines: Implications for shoreline change. *Journal of Coastal Research*, v.22, n.4, pp. 894-905.
- Morton, R.A., Miller, T.L., and **Moore, L.J.**, 2005. Historical shoreline changes along the U.S. Gulf of Mexico: A summary of recent shoreline comparisons and analyses. *Journal of Coastal Research*, v. 21, n. 4, pp. 704-709.
- Moore, L.J.**, Jol, H.M., Kruse, S., Vanderburgh, S. and Kaminsky, G.M., 2004. Annual layers revealed in the subsurface of a prograding coastal barrier, southwest Washington, U.S.A., *Journal of Sedimentary Research*, v. 74, n. 5, pp. 690-696.
- Moore, L.J.**, Kaminsky, G.M., and Jol, H.M., 2003. Exploring linkages between coastal progradation rates and the El Niño Southern Oscillation, southwest Washington, USA, *Geophysical Research Letters*, v. 30 n. 9, 1448, doi: 10.1029/2002GL016147.
- Moore, L.J.**, *Sullivan, C., and Aubrey, D.G., 2003. Interannual evolution of multiple longshore bars, Truro, Massachusetts. *Marine Geology*, v. 196, no 3-4, pp. 127-144.
- Solow A and **Moore, L.J.**, 2002. Testing for trend in North Atlantic Hurricane Activity, 1900-1998. *Journal of Climate*, v. 15 n. 21, pp. 3111-3114.
- Moore, L.J.** and Griggs, G.B., 2002. Long-term cliff retreat and erosion hotspots along the central shores of the Monterey Bay National Marine Sanctuary. *Marine Geology*, v. 181, n. 1-3, p. 265-283.
- Solow, A. and **Moore, L.J.**, 2000. Testing for trend in a partially incomplete hurricane record. *Journal of Climate*, v. 13 n. 20.

- Moore, L.J.**, 2000. Shoreline mapping techniques. *Journal of Coastal Research*, v. 16 n. 1, pp. 111-124
- Moore, L.J.**, Benumof, B., and Griggs, G.B., 1999. Coastal erosion hazards in Santa Cruz and San Diego Counties, California. In: Crowell, M. and Leatherman, S.P. (eds.), *Coastal Erosion Mapping and Management, Journal of Coastal Research Special Issue No. 28*, pp. 121-139.
- Hapke, C., Gibbs, A., Richmond, B., Hampton, M., Jaffe, B., Dingler, J., Sallenger, A., Benumof, B., Brown, K., Griggs, G., **Moore, L.J.**, Scholar, D., Storlazzi, C., Krabill, W., Swift, R., and Brock, J., 1998. A collaborative program to investigate the impacts of the 1997-98 El Nino along the California coast. *Shore and Beach*, v. 66, pp. 24-32.
- Pinet, P.R., McClennen, C.E., and **Moore, L.J.**, 1998. Unpacking environmental complexity: a geologic appraisal of shoreline erosion along southeastern Lake Ontario, New York. In: Welby, C. W. and Gowan, M. E. (eds.), *A Paradox of Power: Voices of Warning and Reason in the Geosciences, Reviews in Engineering Geology XII*, The Geological Society of America, pp. 9-21.
- Griggs, G.B., **Moore, L.J.**, Tait, J.F., Scott, K. and Pembroke, D., 1996. The effects of the storm waves of 1995 on beaches adjacent to a long-term seawall monitoring site in northern Monterey Bay, California. *Shore and Beach*, v. 64, n. 1, pp. 34-39.
- McClelland, J., Ashwal, L., and **Moore, L.J.**, 1994, Composition and petrogenesis of oxide-, apatite-rich gabbro-norites associated with Proterozoic anorthosite massifs: examples from the Adirondack Mountains, New York. *Contributions to Mineralogy and Petrology*, v. 116, pp. 225-238.

Other Refereed Contributions

- Moore, L.J.**, 2005. An assessment of hillslope stability using the factor of safety. Laboratory exercise focusing on development of quantitative skills for use in Earth Surface Processes courses, Published online at <http://serc.carleton.edu/quantskills/activities/moore.html> [Ranked “**Exemplary**” in 2014 by the Cutting Edge Review Program].
- Morton, R.A., Miller, T.L., and **Moore, L.J.** 2004. National assessment of shoreline change: Part 1 Historical shoreline changes and associated coastal land loss along the U.S. Gulf of Mexico, USGS OFR 2004-1043, <http://pubs.usgs.gov/of/2004/1043/>.
- Moore, L.J.**, Morton, R.M., Sallenger, A., 2002. Historical Coastal Change Hazards for the Conterminous United States and Hawaii: Initial Progress under the USGS National Coastal Assessment. USGS OFR 02-191.

Reports, Book Reviews, Data Compilations and Model Contributions (non-refereed)

- *Walters, D., **Moore, L.J.**, *Durán Vinent, O., Mariotti, G. and Fagherazzi, S., 2015. GEOMBEST-Plus (Geomorphic Model of Barrier and Estuarine Translations- Plus Dynamic Marsh), v.1.0, DOI: 10.5281/zenodo.16576
- *Durán Vinent, O. and **Moore, L.J.**, 2015. Coastal Dune Model, v1.0. DOI:10.5281/zenodo.16161
- Moore, L.J.**, and Stolper, D., 2012, GEOMBEST (Geomorphic Model of Barrier and Estuarine Translations), v 1.1. DOI: 10.5281/zenodo.16576
- Fenster, M., **Moore, L.J.**, Dean, R.G., and Dolan, R., 2009. Shoreline Restoration and Infrastructure Protection Program: Wallops Island, Virginia, Independent Technical

- Review, Technical Memorandum #2, Review of EIS Preliminary Draft Chapters 3 & 4, 20p.
- Fenster, M., Dean, R.G., Dolan, R., and **Moore, L.J.**, 2009. Shoreline Restoration and Infrastructure Protection Program: Wallops Island, Virginia, Independent Technical Review, Technical Memorandum #1, Review of Background Information and Studies, Scoping Comments, and EIS Preliminary Draft Chapters 1 & 2, 33p.
- Moore, L.J.**, 2005. Review of *A Celebration of the World's Barrier Islands* by Orrin Pilkey and Mary Edna Frasier, (*Invited*), *Palaios*, v.20, n.1, pp. 97-98.
- Morton, R.A., Miller, T.L., Sallenger, A., and **Moore, L.J.**, 2004. The national assessment of shoreline change: A GIS compilation of vector sand associated shoreline change data for the U.S. Gulf of Mexico. USGS OFR 2004-1089, <http://pubs.usgs.gov/of/2004/1089/>.
- Griggs, G.B., Tait, J.F., **Moore, L.J.**, Scott, K., Corona, W., and Pembroke, D., 1997. *The interaction of seawalls and beaches: eight years of field monitoring, Monterey Bay, California*. Army Corps of Engineers, Coastal Engineering Research Center Technical Report, 34p.

Published Abstracts

- *Goldstein, E.B., **Moore, L.J.**, Durán Vinent, O., and *Jass, T.L., 2014, Species-Specific Control on Coastal Fore-dune Morphology along the U.S. East Coast, Abstract EP31B-3559, AGU Fall Meet. Suppl.
- *Jass, T.L., **Moore, L.J.**, Young, D.R., Bruno, J.F., Durán Vinent, O., and Goldstein, E.B., 2014, Considering the Different Roles of *Ammophila breviligulata* and *Spartina patens* in Coastal Fore-dune Formation and Growth, Abstract EP31C-3576, AGU Fall Meet. Suppl.
- *Lauzon, R., **Moore, L.J.**, Murray, A.B., *Walters, D., Fagherazzi, S., and Mariotti, G., 2014, Marsh Edge Erosion Effects in Coupled Barrier Island-Marsh Systems, Abstract EP31B-3543, AGU Fall Meet. Suppl.
- Moore, L.J.**, Bruno, J., Durán Vinent, O., Fagherazzi, S., *Goldstein, E.,B., *Jass, T., *Lauzon, R., Mariotti, G., Murray, A.B., *Walters, D., Young, D., 2014, Ecomorphodynamic Feedbacks and Couplings Between Landscape Subsystems Influence Barrier Island Response to Changing Climate, EP33D-07, AGU Fall Meet. Suppl.
- *Rogers, **Moore, L.J.**, *Goldstein, E.B., 2014. The impact of anthropogenic structures on the delivery of overwash and the evolution of barrier islands, Abstract EP31B-3541, Abstract AGU Fall Meet. Suppl.
- *Walters, D., **Moore, L.J.**, * Durán Vinent, O., Fagherazzi, S., Mariotti, G., and Kirwan, M., 2014. How much is too much: The impact of overwash deposition on backbarrier marsh vegetation. *Geological Society of America Abstracts with Programs*, Vol. 46, no.6.
- *Durán Vinent, O. and Moore L.J., 2014, Barrier island bistability induced by non-vegetated dune nucleation at the beach. International Conference on Aeolian Research.
- *Durán Vinent, O. and **Moore, L.J.**, 2014. Vegetation controls on the maximum size of coastal dunes, European Geophysical Union Annual Meeting, Vienna, Austria, Abstract EGU2014-9679 Accepted to session GM5.1/SSP3.1.12
- Moore, L.J.**, and *Durán Vinent, O., 2013 (*Invited*), Barriers on the Brink? Interactions Between Biological and Physical Processes Lead to Bistability and the Potential for Rapid Response to Gradually Changing Conditions Abstract EP21A-01, AGU Fall Meet. Suppl.
- *Walters, D., **Moore, L.J.**, *Durán Vinent, O., Fagherazzi, S., and Mariotti, G., 2013, Overwash Deposition Stabilizes Backbarrier Marshes as Sea Level Rises: Insights from Experiments

- Conducted using a Coupled Barrier Island-Marsh Model, Abstract EP13A-0864, AGU Fall Meet. Suppl.
- *Grady, A.E., Jenkins, C.J., **Moore, L.J.**, Potts, D.C., Burgess, P.M., Storlazzi, C.D., Elias, E., and Reidenbach, M.A., 2013, Feedbacks Between Wave Energy And Declining Coral Reef Structure: Implications For Coastal Morphodynamics, Abstract EP13A-0837, AGU Fall Meet. Suppl.
- Moore L.J.**, * Durán Vinent, O, *Walters, D, Fagherazzi, S. *Mariotti, G., Young, D., *Wolner, C.V., (*Invited*), 2012. Biological-physical feedbacks determine coastal environmental response to climate change. AGU, Fall Meet. Suppl.
- Moore, L.J.**, * Durán Vinent, O., and D. Young, Department of Biology, The role of ecomorphodynamics in barrier island response to climate change. 2012, AGU, Fall Meet. Suppl.
- * Durán Vinent, O., **Moore L.J.**, and Young, D., 2012 (*Invited*). The role of vegetation in shaping dune morphology. AGU, Fall Meet. Suppl.
- *Grady, A.E., **Moore L.J.**, Storlazzi, C.D., Elias, E. and Reidenbach, M.A., 2012, Influence of Climate Change on Wave Dissipation over Coral Reefs: Effects on Beach Morphology, 2012, AGU, Fall Meet. Suppl.
- *Johnson, J., **Moore L.J.**, *Ells, K. and Murray, A.B., 2012. Potential geomorphic consequences of wave climate alterations along cusped coastlines. AGU, Fall Meet. Suppl.
- *Walters, D., **Moore, L.J.**, * Durán Vinent, O, *Mariotti, G. and S. Fagherazzi, 2012, Dynamic interactions and feedbacks between barrier and back-barrier environments, and their role in barrier-marsh co-evolution. AGU, Fall Meet. Suppl.
- *Walters, D., **Moore, L.J.**, * Durán Vinent, O., *Mariotti, G. and S. Fagherazzi, 2012, Modeling the dynamic interactions and feedbacks between barrier islands and fringing back-barrier marshes, *Abstracts with Programs - Geological Society of America*.
- * Durán Vinent, O., **Moore, L.J.** and D. Young, 2012. Modeling the formation of dunes on barrier islands, *Abstracts with Programs - Geological Society of America*.
- *Bissett, S. N., *Brantley, S.T., Young, D.R., *Wolner, C.V. and **Moore, L.J.** 2011. Plant community feedbacks on barrier island geomorphology in response to climate change. Ecological Society of America Annual Meeting, Abstract 30111.
- *Brenner, O.T. and **Moore, L.J.**, 2010. Exploring the importance of back-barrier marsh deposits in barrier island response to sea level rise, Virginia Coast Reserve, U.S.A. AGU Fall Meeting.
- *Oster, D.J., **Moore, L.J.**, Doran, K.S. and Stockdon, H.F., 2010. A temporal assessment of barrier island vulnerability to extreme wave events, Virginia Coast Reserve. AGU Fall Meeting.
- *Wolner, C.V., **Moore, L.J.**, Young, D.R., Brantley, S.T., Bissett, 2010. The influence of the “maintainer” feedback on overwash persistence in the Virginia Coast Reserve. Abstract EP33B-0771, AGU Fall Meeting.
- Wilkins, C., Fenster, M.S., *Brenner, O.T., Gontz, A.M. and **Moore, L.J.**, 2010. The influence of Nearshore geology on the northern Virginia barrier islands during sea-level rise. Joint Northeast-Southeast Geological Society of America Meeting, Baltimore, MD, March 15-16.
- Moore, L.J.**, List, J.H. *Patsch, K., and Williams, S.J., 2009. Barrier island sensitivity to sea-level rise: Insights from numerical model experiments, North Carolina Outer

- Banks and Chandeleur Islands, LA USA. *EOS Transactions AGU*, 90(22), Fall Meet. Suppl., Abstract U51A-0012.
- Moore, L.J.**, *Brenner, O, McNamara, D., Murray, A.B., 2009 (*Invited*). Recent shifts in shoreline orientation along a cusped coast potentially linked to climate change, North Carolina Outer Banks, USA, *EOS Transactions AGU*, 90(22), Fall Meet. Suppl., Abstract EP31C-05.
- McNamara, D., Murray, A.B., **Moore, L.J.**, *Brenner, O., 2009. Modeling coastline response to changing storm climate. *EOS Transactions AGU*, 90(22), Fall Meet. Suppl., Abstract U43A-0071.
- *Wolner, C.V., **Moore, L.J.**, Young, D., Brantley, S., 2009. Biogeomorphic feedbacks in barrier island evolution: Exploring temporal and spatial persistence of overwash zones in the Virginia Coast Reserve. *EOS Transactions AGU*, 90(22), Fall Meet. Suppl., Abstract EP31C-06.
- Moore, L.J.**, Williams, S.J., List, J.H., 2008. Complexities in barrier island response to sea-level rise: Insights from model experiments, *EOS Transactions*, AGU, 89(53), Fall Meet. Suppl., Abstract OS23A-1253.
- Murray, A.B., **Moore, L.J.**, McNamara, D., *Brenner, O. and Slott, J., 2008. Testable predictions for large-scale coastline-shape changes in response to changing storm climate. *EOS Transactions AGU*, 89(53), Fall Meet. Suppl., Abstract OS34A-06.
- Moore, L.J.**, 2008. Modeling past and potential future evolution of the Chandeleur Islands of southeastern Louisiana in response to relative-sea level rise. *The Geological Society of America Abstracts with Programs*, 40(6), p.486.
- Moore, L.J.**, List, J.H. and Williams, J., 2007. Modeling evolution of the Chandeleur Islands of southeastern Louisiana: Initial exploration of a possible threshold crossing, *EOS Transactions*. AGU, 88(23), Fall Meet. Suppl., Abstract H41B-0499.
- Moore, L.J.**, List, J.H., Stolper, D. and Williams, J., 2006. Modeling large-scale Holocene barrier island morphodynamics and potential future response to sea-level rise, Outer Banks, North Carolina, *EOS Transactions*. AGU, 87(52), Fall Meet. Suppl., Abstract H31I-08.
- Moore, L.J.**, List, J.H., Stolper, D. and Williams, J., 2006. Modeling the large-scale morphodynamics of barrier island coasts under conditions of rising sea level, *EOS Transactions*. AGU, 87(36), Ocean Sci. Meet. Suppl., Abstract OS35E-03.
- Jol, H.M., Fisher, T.G., Loope, W.L., Smith, D.G., and **Moore, L.J.**, 2005. GPR studies along the present and past coastlines of the Great Lakes. Geological Society of America, 39th Annual Meeting of the North-Central Section, Minneapolis, MN, May 19-20, Abstracts with Programs, 37(5), p. 7.
- Moore, L.J.**, Ruggiero, P.R., and List, J.L., 2004. Quantifying shoreline change using mean high water and high water line shorelines: Should proxy datum offsets be incorporated? *EOS Transactions*. AGU, 85(47), Fall Meet. Suppl., Abstract H41C-0324.
- D'Iorio, M.D., Richmond, B.M., and **Moore, L.J.**, 2003. A GIS-based approach to coastal change assessment in Santa Cruz County. *The Geological Society of America Abstracts with Programs*, 34(7), p. 286.
- Moore, L.J.**, Jol, H.M., Kaminsky, G.M., and Kruse, S., 2003. Severe winter storm effects revealed in stratigraphy of prograding coastal barrier, Southwest Washington, USA. *Proceedings of the International Conference on Coastal Sediments 2003*, p. 545.

- Moore, L.J.**, Buster, N.A., Cohen, A.L., 2002. Hurricane overwash deposits in salt ponds of St. Croix, U.S.V.I.: Theory vs. practice. *Abstracts with Programs - Geological Society of America*, 34(6), p. 132.
- Moore, L.J.**, Harris, M., Brock, J., Schirokauer, D., and McIntyre P. 2002. Coastal dune habitat, morphology and restoration at Point Reyes National Seashore: Applications of historical aerial photography, DEMs and lidar. *Coastal and Marine Remote Sensing*, Miami, May 22.
- Moore, L.J.**, Morton, R.A., Sallenger, A. H., and Guy, K., 2001. Historical coastal change hazards for the United States: Initial progress under the USGS National Assessment. *Abstracts with Programs - Geological Society of America*, 33(6).
- Brock, J., Duffy, M., Harris, M., Krabill, W., **Moore, L.**, Sallenger, A.H., 2001. USGS-NPS-NASA research on coastal change and habitats within US national seashores. *Abstracts with Programs - Geological Society of America*, 33(6), p. 165.
- Moore, L.J.**, Jol, H.M., Vanderburg, S., Kruse, S., Kaminsky, G.M., and Gelfenbaum, G., 2001. Linkages between shoreline progradation and climate, Southwest Washington, USA, *EOS Supplement*, American Geophysical Union Fall Meeting, December 10-14.
- Moore, L.J.**, Jol, H.M., and Kaminsky, G., 2001. Exploring linkages between coastal processes and climate variability using ground penetrating radar, southwest Washington, USA. GPR in Sediments Conference, London, UK, August 20,21.
- Moore, L.J.**, Mote, P., 2000 (*Invited*). Linking climate variability and coastal processes: A session overview and perspectives, *EOS Supplement*, American Geophysical Union Fall Meeting.
- Moore, L.J.**, Jol, H. and Kaminsky, G., 2000. Exploring correlations between shoreline progradation and climate indices, southwest Washington, *EOS Supplement*, American Geophysical Union Fall Meeting.
- Moore, L.J.**, Solow, A. and Aubrey, D.G., 2000. The coastal perspective: Trends in Atlantic Basin hurricane landfall activity, American Geophysical Union Ocean Sciences Meeting, San Antonio, Texas. January 24-28.
- Moore, L.J.**, 1999. Climate change and variability: Considering impacts on coastal morphology in the Columbia River littoral cell. *Proceedings of the Fourth Southwest Washington Coastal Erosion Study Workshop*, November 17-19.
- Moore, L.J.**, 1997. Application of digital softcopy photogrammetry to the measurement of shoreline erosion rates along the California Coast. *EOS Supplement*, American Geophysical Union Fall Meeting.
- Hapke, C., and **Moore, L.J.**, 1997. Evaluation of rectification techniques in the application of digital softcopy photogrammetry to shoreline position analyses. *EOS Supplement*, American Geophysical Union Fall Meeting.
- Benumof, B., and **Moore, L.J.**, 1997. FEMA and state-of-the-art coastal erosion mapping along the San Diego County shoreline. California's Coastal Natural Hazards Conference, November 12-14.
- Urish, D.W., **Moore, L.J.** and Morin, R.H., 1995. The effect of a dynamic coastal boundary on potential sea water intrusion: Carmel River Beach, CA. *Eos, Transactions, American Geophysical Union*. v. 76 n. 46 Suppl., p. 193
- Moore, L.J.**, *Randolph, C., and Griggs, G.B., 1995. The infrequent appearance of an ephemeral storm beach, Santa Cruz, CA. *Eos, Transactions, American Geophysical Union*. v. 76 n. 46 Suppl., p. 286-28

Moore, L.J., Richmond, B.R., and Griggs, G.B., 1994. The relationship between coastal sand mining and erosion rates along the southern Monterey Bay shoreline, 25th Annual Underwater Mining Institute, December 1-4.

Pinet, P., McClennen, C., and **Moore, L.**, 1993. Coastal compartments of the southeastern shoreline of Lake Ontario: Implications for coastal management. *The Geological Society of America Abstracts with Programs*, v. 25 n. 6 p. A368.

Teaching Record

Courses Taught

University of North Carolina

Advanced Coastal Environmental Change (GEOL 710), Spring 2015, 6 students, 1 auditor

Introductory Graduate Seminar (GEOL 700), Fall 2014, 9 students

Coasts in Crisis First Year Seminar (GEOL 079), Fall 2014, 19 students

Introductory Graduate Seminar (GEOL 700), Fall 2013, 11 students

Coastal Environmental Change (GEOL 310), Fall 2013, 19 students

Advanced Coastal Environmental Change (GEOL 710), Spring 2013, 6 students, 1 auditor

Introduction to Geology (GEOL 101), Spring 2013, 114 students

Coasts in Crisis First Year Seminar (GEOL 079), Fall 2012, 20 students

Coastal Sedimentary Environments (GEOL 430), Spring 2012, 3 students

Introduction to Earth and Climate for Science Majors (GEOL 110), Spring 2012, 27 students, 1 auditor.

Introduction to Earth and Climate for Science Majors (GEOL 110), Spring 2011, 23 students.

Independent Study (Geol 390), Spring 2011, Marcelaine Tanner, 1.0 credit.

University of Virginia

Independent Study (EVSC 494), Fall 2010, Nicholas Brockemeir, co-advised with R. Davis

Coastal Processes (EVSC 485), Spring 2009, 14 students and 1 auditor, 1 TA, team-taught with R. Dolan

Independent Study (EVSC 494), Spring 2009, Danielle LaRock, co-advised with P. Wiberg,

Independent Study (EVSC 494), Spring 2009, Caleb Buller, co-advised with M. Reidenbach,

Climate Change Impacts on Coastal Processes (EVSC 493/793), Fall 2008, 3 students and 2 auditors

Independent Study (EVSC 494), Fall 2008, Danielle LaRock, co-advised with P. Wiberg,

Oberlin College

Coasts in Crisis (First-year Seminar), Fall 2003, 2004, 2005, 2007

Earth's Environments, Spring 2003, 2004, 2005, 2007

Geographic and Geologic Mapping and Analysis, Spring 2003, 2004

Earth Surface Processes, Fall 2002, 2003, 2004, 2005, 2007

University of California Santa Cruz

Remote Sensing and GIS: Geologic Applications, Spring 1998

Current UNC-CH Postdoctoral Associates, Graduate Students and Research Assistants

Evan Goldstein (Postdoctoral Associate), June 2014 - present

Elsemarie deVries (Ph.D. student), August 2014 - present

Margaret Jones (M.S. student), August 2014 - present

Laura Rogers (M.S. student), August 2013 - present
Theo Jass (M.S. student), August 2013 - present

Current Students not based at UNC-CH, for whom I am a research mentor

Rebecca Lauzon (Ph.D. student), June 2014 - present (Duke University)
Fateme Yousefi (Ph.D. student), September 2013- present (Duke University)
Nick Cohn (Ph.D. student), January 2015 – present (Oregon State University)

Previous Postdoctoral Associates, Graduate Students and Research Assistants

Amy Grady (Ph.D. student, UVA), September 2010 - December 2014
Orencio Duran Vinent (Postdoctoral Associate), August 2011 - July 2013
David Walters (M.S. student), August 2011 - August 2013
 Thesis: Overwash deposition increases backbarrier marsh resiliency to sea level rise:
 Insights from a coupled barrier island-marsh model
Jennifer Johnson (M.S. student), August 2011 - August 2013
 Thesis: The Geomorphic Consequences of Wave Climate Change along Cuspate
 Coastlines
Owen Brenner, (M.S. student- UVA), September 2010 - April 2012
 Thesis: The complex influences of backbarrier deposition, substrate slope and
 underlying stratigraphy in barrier island response to sea level rise: Insights
 from the Virginia Barrier Islands, Mid-Atlantic Bight, U.S.A.
Dana Oster, (M.S. student- UVA), September 2010 - April 2012
 Thesis: The influence of morphology on barrier island recovery following storms:
 Insights from the Virginia Barrier Islands, Mid-Atlantic Bight, U.S.A.
Catherine Wolner, (M.S. student-UVA), September 2009 - July 2011
 Thesis: Ecomorphodynamic feedbacks and barrier island evolution, Virginia Coast
 Reserve, USA.
Kiersten Patsch (Postdoctoral Associate- UVA) October 2009 - December 2010
Owen Brenner (Research Assistant, full-time-UVA), September 2008 - August 2009

Graduate Student Awards and Honors

Laura Rogers, Best Graduate Student Talk, 3rd Place, Anadarko Symposium, April 2015
J.J. Johnson, Best Graduate Student Talk, 3rd Place, Anadarko Symposium, April 2013
J.J. Johnson, Best First-year Graduate Student Poster, Anadarko Symposium, April 2012
Amy Grady, NSF Graduate Fellowship, August 2011 - July 2016
Amy Grady, NSF Graduate Fellowship Honorable Mention, August 2010
Catherine Wolner, Best Poster Award, UVA EnviroDay, January 2011
Dana Oster, Best Poster Award runner-up, UVA EnviroDay, January 2011

Additional Graduate Student Committee Service

Maggie Esch (Ph.D. student), Department of Marine Sciences, University of North Carolina
Chapel Hill April 2015-present.
Mejs Hasan (Ph.D. student), Department of Geological Sciences, University of North Carolina
Chapel Hill December 2014-present.
Liz Humphries (Ph.D. student), Department of Geological Sciences, University of North Carolina
Chapel Hill January 2014-present.
Fateme Yousefi (Ph.D. student), Earth and Ocean Sciences Division, Duke University, September
2013– present.

Rebecca Lauzon (Ph.D. student), Earth and Ocean Sciences Division, Duke University, September 2013– present.
Sierra Scheegle (Ph.D. student), Curriculum for the Environment and Ecology, University of North Carolina Chapel Hill April 2013-present.
George Allen (Ph.D. student), Department of Geological Sciences, University of North Carolina Chapel Hill, January 2012 - present.
Katherine Murray (Ph.D. student), Earth and Ocean Sciences Division, Duke University, May 2013 – December 2015.
Evan Goldstein (Ph.D. student), Earth and Ocean Sciences Division, Duke University, January 2011 – July 2013.
Emily Timmons (Ph.D. student), Department of Marine Sciences, University of North Carolina-Chapel Hill, January 2012 – June 2013.
Jodi Smith (Ph.D. student), Department of Environmental Sciences, May 2008 - June 2010

Previous Undergraduate Research Assistants and Honors Students

Meredith Fish (B.S. student), Math Major, August 2014 - December 2014
Sarah Margolis, Boston University, Environmental Sciences Major, June 2014 - December 2014
CJ Cornette, University of North Carolina, Geological Sciences Major, 2013
Nicholas Brockemeir, University of Virginia, Environmental Sciences Major, 2009
Michael Rose, Oberlin College, Geology Major, 2005
Margaret Reitz, Oberlin College, Geology Major, 2005
Ting Fong Lee, Oberlin College, Environmental Studies Major, Honors Student, 2004
Andrew Donnellycolt, Oberlin College, Geology Major, 2004
Susan Powell, Oberlin College, Geology Major, 2003
Benjamin Stanley, Oberlin College, Geology Major, 2003
Lindsey Kraatz, Eckerd College, USGS Research Assistant, 2001
Charlene Sullivan, WHOI Summer Student Fellow, 1999
Carrie Randolph, UCSC, Earth Sciences Major, 1998

Grants Pending

Modeling Human Coastline Coupling: Responses to Changing Sea Level, Storms, and Development. National Science Foundation, Coupled Natural-Human Systems Program, ~\$2,000,000 (total)/~**\$282,530 (UNC-CH)**, Lead PI: D. McNamara (UNC-W), **PIs:** S. Gopalakrishnan (OSU), Andy Keeler (UNC Coastal Studies Inst.), Craig Landry (ECU), **L. Moore** (UNC-CH), A.B. Murray (Duke), Marty Smith (Duke), to be submitted November 18, 2014.

Collaborative Research: Coupled Fates of Coastal Systems: Do Feedbacks among Upland, Bay, Marsh and Barrier Subsystems Drive Integrated Responses to Global Change? National Science Foundation, Integrated Earth Systems Program, \$2,999,230(total)/**\$425,384 (UNC-CH)**, **Lead-PI: L. Moore**, **PIs:** P. Wiberg (UVA), K. McGlathery (UVA), P. D’Odorico (UVA), M. Marani (Duke), A.B. Murray (Duke), M. Kirwan (VIMS), S. Fagherrazi (BU), D. FitzGerald (BU), Z. Hughes (BU), R. Torres (USC), to be submitted November 14, 2014.

The Role of Vegetation in Coastal Response to Sea Level Rise. National Oceanic and Atmospheric Association, Ecological Effects of Sea Level Rise Program, ~\$599,550 (total)/~**\$195,500 (UNC-CH)**, Lead-PI: P. Ruggiero (OSU), **PIs:** S. Hacker (OSU) and **L. Moore**. To be submitted November 18, 2014.

Grants

Funded External Grants

- Enhancing Coastal Resilience on Virginia's Eastern Shore, National Federation for Fish and Wildlife (NFWF) via subcontract from The Nature Conservancy, \$1,250,000 (total)/**\$105,668 (UNC-CH Total)/\$91,832 (UNC-CH Direct)**, **Lead PI: L. Moore**, Co-PIs: M. Fenster (Randolph Macon College), A.B. Murray (Duke), D. McNamara (UNC-W), August 15, 2014 - August 14, 2016. One graduate student at 100%, Moore effort 11%.
- Collaborative Research: Exploring the role of Ecomorphodynamic Feedbacks in Barrier Island Response to Climate Change. National Science Foundation, Geomorphology and Land Use Program, \$481,982 (total)/ **\$382,784 (UNC-CH Total)/ \$307,196 (UNC-CH Direct)**. **Lead PI: L. Moore**, Co-PIs: J. Bruno (UNC-CH), D. Young (VCU). September 15, 2013- September 14, 2016. One graduate student at 100%, Moore effort 11%.
- LTER (Long-term Ecological Research): Drivers, dynamics and consequences of non-linear change in coastal barrier systems, National Science Foundation, Division of Environmental Biology, \$5,880,000 (total)/**\$215,000 (UNC-CH Total)/\$178,629 (UNC-CH Direct)**, **Lead-PI: K. McGlathery**, **Co-PIs:** P. D'Odorico (UVA), S. Fagherazzi (BU), **L. Moore** (UNC-CH), M. Pace (UVA), J. Porter (UV0041), M. Reidenbach (UVA), P. Wiberg (UVA), D. Young (VCU), November, 1 2012 - October 31, 2018. One graduate student at 100%.
- Collaborative Research: Coastal Geomorphic Consequences of Wave Climate Change, National Science Foundation, Geomorphology and Land Use Program, \$515,000 (total)/ **\$155,071 (UNC-CH Total)/\$108,424 (UNC-CH Direct)**. **Lead-PI: P. Adams** (UF), **Co-PIs: L. Moore**, D. McNamara (UNC- W) and A.B. Murray (Duke), September 1 2011 - August 31, 2015. One graduate student at 100% for 2 years; Moore effort 11%.
- Biogeomorphic Controls on Barrier Island Evolution in Response to Climate Change, Subaward from University of Virginia for remainder of NICCR-DOE award (below). **\$25,241 (UNC-CH Direct)**. **Lead PI: L. Moore.**, Co-PI: D. Young (VCU), January 2011 - August 2012. One postdoctoral associate at 15%.
- Collaborative Research: Biogeomorphic Controls on Barrier Island Evolution in Response to Climate Change, National Institute for Climatic Change Research, Department of Energy, \$249,000 (total)/ **\$142,000 (UVA Total)**. **Lead PI: L. Moore**, Co-PI: D. Young (VCU), August 2009 - August 2012.
- Seismic Data Collection, National Science Foundation Subcontract via Randolph Macon College in support of collaborations with Michael Fenster, **\$8,700 (UVA Total)**. **Lead PI: L. Moore**.
- Modeling the Holocene and potential future evolution of the Chandeleur Islands, Louisiana, U.S. Geological Survey, **\$60,800 (UVA Total)**. **Lead PI: L. Moore**, Jan. 2008 - Dec. 2009.
- S-STEM Scholarships at Oberlin College: Supporting Undergraduate Engagement in Computation and Modeling, National Science Foundation, **\$541,000 (Total)**. **Lead PI: R. Salter**, **Co-PIs: L. Moore** and D. Stinebring, 2007-2010.
- Modeling the Holocene and potential future evolution of the Chandeleur Islands, Louisiana, U.S. Geological Survey, **\$88,372 (Total)**. **Lead PI: L. Moore**, 2007 - 2008.
- Barrier island response to sea-level rise, Mellon 8 Consortium Semester Research Leave, **\$30,000 (Total)**. **Lead PI: L. Moore**, 2005-2006.
- Quantifying the bias between proxy-based and datum-based shorelines, U.S. Geological Survey, **\$28,828 (Total)**. **Lead PI: Moore**, 2003-2004.
- Quantification of beach change and coastal erosion hazards, U.S. Geological Survey, **\$125,000 (Total)**. **Lead PI: P. Howd**, **Co-PI: L. Moore**, 2001-2002.

Exploring late-Holocene hurricane activity as recorded in salt ponds and lagoons of the Caribbean region. National Science Foundation SGER – Earth System History, **\$40,000 (Total)**. **Lead PI: L. Moore**, Co-PI: A. Cohen, 2000 - 2002.

Operational creation of aerial mapping data products for Vital Signs Monitoring within northeastern national seashores, National Park Service, **\$50,000 (Total)**. Lead PI: Brock, **PI: L. Moore**, 2001- 2002.

Coastal erosion hazard mapping in Santa Cruz and San Diego Counties, Federal Emergency Management Agency, **\$77,760 (Total)**. Lead PI: G. Griggs, **Co-Author: L. Moore**, 1996-1998.

Acquisition of hardware and software for an Imaging and GIS Facility for the study of Earth Sciences, National Science Foundation, Instrumentation and Facilities Program, **\$42,000 (Total)**. Lead PI: G. Griggs, PI: R. Anderson, **Author: L. Moore**, 1996-1997.

Selected Internal Grants

Junior Faculty Development Award, PI, University of North Carolina, \$7468 toward summer salary in support of development of a proposal (solicited by Springer) and preparation of an introductory chapter for an edited volume on barrier island response to climate change, August 2014.

Professors as Writers Program, PI, University of Virginia, \$1000, Fall 2009 - Spring 2010.

Modeling Barrier Island Response to Sea-Level Rise, sole PI, Oberlin College Grant-in-Aid, \$2400, 2007.

Using Oxygen isotopes to identify hurricane overwash deposits, St. Croix, USVI, PI, Oberlin College-University of Michigan Cooperative, \$10,000, 2005-2006.

Interdisciplinary collaborations: Campus visit by coastal geologist Dr. Orrin Pilkey and American artist Mary Edna Fraser, Sole PI, Mead-Swing Lecture Fund, Oberlin College, \$3500, 2004.

Reconstructing late-Holocene climate change and sea-level variations, St. Croix, U.S.V.I., PI, Oberlin College AIRE grant, \$3650. Funding for summer research assistant, 2003.

Developing first year seminar “Coasts in Crisis,” First Year Seminar Program, PI, Oberlin College, \$3500, 2003.

Exploring linkages between coastal progradation and climate variability, PI, University of South Florida Travel Grant Program, \$5000, 2001.

Professional Service to Discipline

Editor, accepted invitation from Springer to develop an edited volume of contributions from prominent researchers studying barrier island response to climate change. Target completion date, December 2016.

Steering Committee Member, for the NFWF-funded project, Enhancing Coastal Resilience on Virginia’s Eastern Shore, National Federation for Fish and Wildlife, led by The Nature Conservancy. August 2014 - present.

Session Co-convenor, “Relevant Science for our Changing Coasts: A Tribute to Gary Griggs.” Organizing special session to be held at Coastal Sediments ‘15, May 11-15, 2015, San Diego, CA.

Participant (*Invited*), Predicting Landscape Response to Climate Change, NSF-Funded Workshop for 25 participants from the field of geomorphology invited to consider future directions for the study of landscape response to climate change. September 25-27, 2013, Tucson, AZ

Participant, Joint Penrose/Chapman Conference: *Coastal Processes and Environments under Sea-Level Rise and Changing Climate: Science to Inform Management*, Jointly sponsored conference (by the American Geophysical Union and The Geological Society of America) of 85 coastal specialists to assess our current understanding of climate change impacts on coastal environments, April 14-19 2013, Galveston, TX.

Coastal Working Group Member, Community Surface Dynamics Modeling System (CSDMS), Multi-year NSF- funded Community Modeling Effort, March 2008 - present. Attended all-hands CSDMS meeting, March, 2013.

Proposal Reviewer and Panelist: National Science Foundation, National Institute for Climate Change Research- Department of Energy, American Chemical Society Petroleum Research Fund, National SeaGrant.

Manuscript Reviewer: *Journal of Geophysical Research- Earth Surface, Marine Geology, Journal of Sedimentary Research, Journal of Climate, Journal of Coastal Research, The Professional Geographer, Shore and Beach, Palaios, Journal of Great Lakes Research, Journal of Photogrammetry and Remote Sensing, Natural Hazards, Ecology.*

Principal Investigator, Long-term Ecological Research (LTER)-Virginia Coast Reserve (VCR). Leading interdisciplinary research team in investigations of the role of ecomorphodynamic processes in barrier island evolution, January 2008-present.

Facilitator - Barrier island group, Long-term Ecological Research (LTER)-Virginia Coast Reserve (VCR), Annual Meeting, January 4-5, 2011.

Invited Panelist, Shifting Shorelines: Combining Insights from Biological, Physical and Social Sciences, October 27-29, 2010, Duke University Marine Lab. Workshop to present results of National Science Foundation Biocomplexity Project, "Coupling Human and Natural Influences on Coastline Evolution as Climate Changes" and to discuss further scientific work and future policy and management applications.

Facilitator, Community Surface Dynamics Modeling System (CSDMS) Meeting: Modeling for Environmental Change, October 14-17, 2010. Facilitator for multi-session breakout group titled "Couplings between physical, biological and human processes in earth surface and ocean dynamics."

NASA Wallops Independent Review Team Member. Four-person team reviewed scientific studies and Draft EIS chapters for shoreline protection project at NASA Wallops, June 2009 – December 2010.

Climate Change Workshop Participant (*Invited*), The Nature Conservancy, February 11- 12, 2009 Virginia Beach, VA.

Technical Reviewer of Northeast Coastal and Barrier Network Geomorphological Monitoring Protocol, National Park Service, Vital Signs Program, September 2009.

Coastal Advisory Board Member, Southeastern University Research Association, May 2008 - present.

Workshop Co-convenor (*Invited*), "Teaching Geomorphology in the 21st Century." Four-day teaching workshop for geomorphologists from across the country and from abroad, sponsored by Cutting Edge with funding from the National Science Foundation and the National Association of Geoscience Teachers, July 2008.

Session Co-Convenor (*Invited*), Coastal Response to Climate Change and Sea-Level Rise, Coastal Sediments'07, New Orleans, May 2007.

Session Co-Convener, Coastal Geomorphology and Morphodynamics, American Geophysical Union Fall Meeting, San Francisco, December 2006.

Contributing Author, U.S. Climate Change Science Program, Product 1.4, Coastal Elevations and Sensitivity to Sea-Level Rise., March 2006 - present.

Session Co-Chair, Coastal Processes and Hazards along Active Margin and Low Latitude Coasts, Special Session, Geological Society of America Annual Meeting, Seattle, November 2003.

Technical Reviewer, *U.S. Clifed Coasts: Status and Trends*, Fall 2002

Session Co- Chair, Linking Climate Variability and Coastal Processes, Special Session, American Geophysical Union Fall Meeting, San Francisco, December 2000.

Non-Resident Director, California Shore and Beach Preservation Association, November 1998-present.

Session Chair, Science and Engineering for Coastal Hazard Reduction, California's Coastal Natural Hazards Conference, November 12 - 14, 1997.

Director, California Shore and Beach Preservation Association, April 1997 - November 1998.

Academic Service

University of North Carolina

Colloquium Series Organizer, Department of Geological Sciences, March 2015- present.

Geological Sciences X-ray Fluorescence Core Scanner Point of Contact, arranged for and supervised the process of returning the instrument to working status, address requests for use, Fall 2014 - present.

Executive Committee, Department of Geological Sciences, September 2012- September 2014.

Sediment Analysis Lab, Department of Geological Sciences, designed the space and provided oversight during construction, June 2013 - March 2014.

Hydrology Search Committee, Department of Geological Sciences October 2012- April 2013.

Colloquium Series Organizer, Department of Geological Sciences, August 2012 - November 2013.

Coastal Environmental Change Field Trip (developed and led) for 36 introductory geoscience students, Saturday, March 31, 2012 and Sunday, October 7, 2012.

Joint-Hires Committee, Curriculum for the Environment and Ecology, January 2011- present.

B.S. Concentration Committee, Curriculum for the Environment and Ecology, January 2011- January 2012.

University of Virginia

Allocation and Policy Board, September 2008 - August 2009.

Computational Science Advisory Committee, April 2008 - August 2009.

Department of Environmental Sciences, University of Virginia

Long-term Ecological Research - Virginia Coast Reserve, Co-Principal Investigator and Research Oversight Committee, September 2009 – June 2010.

Climate Dynamics Faculty Search Committee, September 2008 - May 2009.

Moore Lectureship Committee, September 2008 - May 2009

Seminar Speaker Host, Dr. Abby Sallenger (U.S. Geological Survey), December 2010.

Undergraduate Seminar Speaker, *Climate Change Impacts on Coastal Barriers: Field Observations and Model Insights*, April 2009.

Oberlin College

Petrology Faculty Search Committee, Oberlin College Department of Geology, Fall 2006;
Visiting Faculty Search Committee, Oberlin College Environmental Studies Program, Fall
2006; Center for Instructional Technology Science Specialist Search Committee,
Summer 2005; Visiting Petrology Faculty Search Committee, Oberlin College
Department of Geology, Spring 2004;
Oberlin College Natural and Mathematical Sciences Advisory Committee, Sept. 2004 - May
2005.
Environmental Studies Program Committee, Sept. 2003 - May 2005.
Oberlin College Admissions Committee, September 2004 - May 2005.
Oberlin Center for Computation and Modeling (OCCaM), Co-founder and Steering Committee
Member, Oberlin College, March 2005 - December 2007.
Oberlin Center for Computation and Modeling (OCCaM), Conference Planning Committee, 2005.

Woods Hole Oceanographic Institution

Coastal Morphodynamics Symposium Convener, Woods Hole Oceanographic Institution,
April 26, 2000.

University of California Santa Cruz

Graduate Commons Building Committee Co-Chair, UCSC, January 1997 - August 1998.
Graduate Student Association President, UCSC, June 1995 - June 1996.
Graduate Council Academic Senate Committee Ex-Officio Member, UCSC, October 1995- June
1996.
Graduate Student Association Secretary, UCSC, October 1994 - June 1995.

Selected Invited Presentations

2nd Annual UNC Climate Change Symposium, Sponsored by Carolina Climate Change Scientist,
April 10, 2015.
Department of Marine Sciences Seminar Series, March 4, 2015
American Joint Geophysical Union Fall Meeting, Coastal Morphodynamics (Session EP22A),
December 2013, San Francisco, CA.
Predicting Landscape Response to Climate Change, NSF-funded conference (for 25 invited
participants) to provide guidance on research directions in the field of geomorphology,
September 25-27, 2013, Tucson, AZ.
*Coastal Processes and Environments under Sea-Level Rise and Changing Climate: Science to
Inform Management*, First Joint Penrose/Chapman Conference, April 2013, Galveston,
TX.
American Geophysical Union Fall Meeting, Biogeodynamics and Earth System Sciences I
(Session B51H), December 2012, San Francisco, CA.
University of North Carolina, Department of Geological Sciences, February 2010.
American Geophysical Union Fall Meeting, Coastal Geomorphology and Morphodynamics
(Session EP13), December 2009, San Francisco, CA.
USGS Coastal and Marine Geology Program, St. Petersburg, FL, November 2009
Virginia Institute of Marine Science, October, 2008.
Duke University, Earth and Ocean Sciences Division, March 2007.
USGS Center for Coast and Watershed Studies, February, 2007.
Press Conference at the American Geophysical Union Fall Meeting, December 2006.

Woods Hole Oceanographic Institution, July 2006.

USGS Pacific Science Center, Santa Cruz, CA June 2006.

University of Toledo, Department of Earth and Environmental Sciences, February 2004.

Bowling Green State University, Geology Department, April 2004.

*student or postdoctoral associate author