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EDUCATION

B.A.	Williams College, 1983, Geology and Physics
M.A.	Columbia University, 1986, Marine Geophysics
M. Phil.	Columbia University, 1987, Marine Geophysics
Ph.D.	Columbia University, 1991, Marine Geophysics

PROFESSIONAL POSITIONS

2007-	Lecturer, Department of Geological Science, University of Texas, Austin, TX
2002-	Senior Research Scientist, Institute for Geophysics, University of Texas, Austin, TX
1998-02	Research Scientist, Institute for Geophysics, University of Texas, Austin, TX
1992-98	Research Associate, Institute for Geophysics, University of Texas, Austin, TX
1991-92	Post-Doctoral Fellow, Institute for Geophysics, University of Texas, Austin, TX
1990-91	Post-Doctoral Research Scientist, Lamont-Doherty Geological Observatory, Columbia University, Palisades, New York
1983-90	Graduate Research Assistant, Columbia University, New York, New York

GEOPHYSICAL EXPERIENCE

S/V *Nordic Explorer*	PGS Cruise 2006020 (Co-Chief Scientist)	3-D imaging of the Kumano Basin- NanTroSEIZE Site Survey April-May, 2006
R/V *Ewing*	Cruise EW0208 (Co-Chief Scientist)	Shear-wave investigation of Hydrate Ridge August-September, 2002
JOIDES *Resolution*	Leg 204	Hydrate Ridge Logging While Drilling, July, 2002
JOIDES *Resolution*	Leg 196	Nankai Trough Logging While Drilling, May, 2001
R/V *Thompson*	Cruise TTN112 (Co-Chief Scientist)	3-D Seismic Imaging of an Active Margin Hydrate System Oregon Continental Margin, June-July, 2000
R/V *Ewing*	Cruise 9907/08 (Co-Chief Scientist)	US-Japan Collaborative 3-D Seismic Experiment, Nankai Trough, June – August, 1999
R/V *Ewing*	Cruise 9803 (Chief Scientist)	Lesser Antilles Subduction Zone Backstop Seismic Experiment, March, 1998
JOIDES *Resolution*	Leg 171A	Barbados Ridge Logging While Drilling, January, 1997
R/V *Ewing*	Cruise 9409	Pacific to Bering Shelf Deep Seismic Experiment, July, 1994
R/V *Ewing*	Cruise 9207	Barbados Ridge 3-D Seismic Survey, June 1992
JOIDES *Resolution*	Leg 141	Chile Margin Triple Junction, Nov. 1991
RRS *Darwin*	Cruise 36/88	Investigation of Tectonics and Sedimentation of Chile Ridge, Dec. 1988
R/V *Conrad*	Cruise 2901	Chile Ridge/Chile Trench Geophysical Survey, Jan. 1988
R/V *Conrad*	Cruise 2604	Deformational Processes in the Lesser Antilles Subduction Zone, April 1985
R/V *Conrad*	Cruise 2312	ATT North Atlantic Cable Survey, July 1984

COMMUNITY SERVICE

ODP-Science Steering and Evaluation Panel (Interior), 1997 - 2000
Joint Oceanographic Institutions - United States Science Advisory Committee (JOI-USSAC), 2001 – 2004
IODP-Site Survey Panel, 2006 – 2009
Margins Steering Committee, 2007 - 2010

MEMBERSHIP IN PROFESSIONAL SOCIETIES

American Geophysical Union (AGU) Geological Society of America (GSA)

PUBLICATIONS (excluding abstracts)

2007

M. Studer, Moore, G. F., P. Costa-Pisani, and N. L. Bangs, Structural restoration and application of dynamic coulomb wedge theory to the Nankai trough accretionary wedge toe, to be submitted to JGR 8-07.

Moore, G. F., N. L. Bangs, A. Taira, S. Kuramoto, E. Pangborn, H. J. Tobin, How Three-dimensional splay fault geometry fosters tsunami generation, *Science*, in final review.

Pecher, I. A., B. Milkereit, A. Sakai, M. Sen, N. L. Bangs, J.-W. Huang, Vertical Seismic Profiles, SEG volume on Gas Hydrates, in final revision 8-07.

Moore, G.F., N.L. Bangs, T. Yoro H. Tanaka, Commercial 3D seismic survey images Nankai subduction complex south of Japan, submitted to EOS, 1/07.

Kumar, D., M. K. Sen, and N. L. Bangs, Gas hydrate concentration from multi-component seismic reflection data from Hydrate Ridge, JGR, in press 1/07.

Johnson, J.E., Goldfinger, C., Bangs, N.L., and Tréhu, A.M., Structural vergence variation and clockwise block rotation in the Hydrate Ridge region, Cascadia accretionary wedge offshore Oregon, Tectonics, in revision 2007.

K. Brown, N. Bangs, S. Schwartz, Report on MARGINS Interdisciplinary Mini-Workshop at AGU 2006, Margins Newsletter, 18, Spring, 2007

2006

Kumar D., M. K. Sen, N. L. Bangs, C. Wang, I. Pecher (2006), Seismic anisotropy at Hydrate Ridge, Geophys. Res. Lett., 33, L01306, doi:10.1029/2005GL023945.

Kumar, D., M. K. Sen, and N. L. Bangs, Seismic characteristics of gas hydrates at Hydrate Ridge, *The Leading Edge*, 25, 616 – 619, 2006.

Bangs, N. L. B., S. P. S. Gulick, T. H. Shipley, Seamount subduction erosion in the Nankai Trough and its potential impact on the seismogenic zone, *Geology*, 34, 701 - 704, 2006.

Tréhu, A.M., Bangs, N.L., and Guerin, G., Near-offset vertical seismic experiments during Leg 204. In Tréhu, A.M., Bohrmann, G., Torres, M.E., and Colwell, F.S. (Eds.), Proc. ODP, Sci. Results, 204 [Online]. Available from World Wide Web: http://www-odp.tamu.edu/publications/204_SR/120/120.htm, 2006.

Bangs, N. L., "Earthquake genesis along the Nankai Trough", Imaging Earth History Beneath the Ocean Floor, NSF Publication, 2006.

Nedimovi´c, M. R. and N. L. Bangs, "Megathrust seismic hazards by reflection mapping", Imaging Earth History Beneath the Ocean Floor, NSF Publication, 2006.

Johnson, J. E., C. Goldfinger, A. M. Tréhu, N. L. B. Bangs, M. E. Torres and J Chevallier, North-south variability in the history of deformation and fluid venting across Hydrate Ridge, Cascadia Margin,

In Tréhu, A.M., Bohrmann, G., Torres, M.E., and Colwell, F.S. (Eds.), Proc. ODP, Sci. Results, 204 [Online]. Available from World Wide Web: http://www-odp.tamu.edu/publications/204_SR/120/120.htm, 2006.

Chevallier, J., A. M Tréhu, N. Bangs, J. Johnson, J. Meyer, Seismic sequence stratigraphy and tectonic evolution of southern Hydrate Ridge, In Tréhu, A.M., Bohrmann, G., Torres, M.E., and Colwell, F.S. (Eds.), Proc. ODP, Sci. Results, 204 [Online]. Available from World Wide Web: http://www-odp.tamu.edu/publications/204_SR/120/120.htm, 2006.

Musgrave, R. J., N. L. Bangs, E. Gràcia, J. C. Larrasoaña, J. A. Hollamby, and M. E Vega, A rock-magnetic record of the upward migration of the gas hydrate stability zone, *Geology*, 34, 117-120, 2006.

2005

Bangs, N., and the Nankai 3-D working group, The 3-D architecture of the Nankai Trough accretionary wedge and the development of the seismogenic zone, Margins Newsletter, 14, 2005.

Tsuji, T., T. Noguchi, H. Niino, T. Matsuoka, Y. Nakamura, H. Tokuyama, S. Kuramoto, N. Bangs, Two-Dimensional Mapping of Microstructures in the Kuroshio Current Using Seismic Reflection Data, Geophys. Res. Lett., 14, L14609,doi:10.1029/2005GL023095, 2005.

Johnson, J. E., C. Goldfinger, N. L. B. Bangs, A. M Tréhu, and J. Chavallier, Structural vergence variation and clockwise block rotation in the Cascadia accretionary wedge, offshore Oregon, Tectonics (submitted 1/05).

Bangs, N. L. B., R. J. Musgrave, A. M. Tréhu, Upward Shifts in the South Hydrate Ridge Gas Hydrate Stability Zone Following Post-Glacial Warming, Offshore Oregon, *Jour. Geophys. Res.110*, B3, B03102,10.1029/2004JB003293, 2005.

Gulick, S. P. S., N. L. B. Bangs, and the Leg 196 scientific party, Negative-polarity at the frontal thrust, is free gas the culprit?: Insights from Nankai accretionary prism off Cape Muroto using seismic-logging integration, *In* Mikada, H., Moore, G.F., Taira, A., Becker, K., Moore, J.C., and Klaus, A. (Eds.), *Proc. ODP, Sci. Results*, 190/196 [Online], 2004. Available from World Wide Web: http://www-odp.tamu.edu/publications/190196SR/353/353.htm.

Bangs, N.L.B., and Gulick, S.P.S., 2005. Physical properties along the developing décollement in the Nankai Trough: inferences from 3-D seismic reflection data inversion and Leg 190 and 196 drilling data. *In* Mikada, H., Moore, G.F., Taira, A., Becker, K., Moore, J.C., and Klaus, A. (Eds.), *Proc. ODP, Sci. Results*, 190/196 [Online]. Available from World Wide Web: <http://www-odp.tamu.edu/publications/190196SR/354/354.htm>.

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Gulick, S. P. S., N. L. Bangs, T. H. Shipley, Y. Nakamura, G. F. Moore, and S. Kuramoto, 3-D architechure of the Nankai accretionary prism's imbricate thrust zone off Cape Muroto, Japan: En

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Bangs, N. L., T. Shipley, S. Gulick, G. Moore, S. Kuromoto, and Y. Nakamura, Evolution of the Nankai Trough décollement from the trench into the seismogenic zone: Inferences from three-dimensional seismic reflection imaging, *Geology*, 32, 4, 273 –276, 2004.

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Heffernan, A.S., Moore, J.C., Bangs, N.L., Moore, G.F., and Shipley, T.H., in press. Initial deformation in a subduction thrust system: polygonal normal faulting in the incoming sedimentary sequence of the Nankai subduction zone, southwestern Japan, application to the exploration of sedimentary basins. *In* Davies, R.J., et al. (Eds.), *3D Seismic Technology: Application to the Exploration of Sedimentary Basin.* Geol. Soc. London Memoir, 29, 143-148, 2004.

2003

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Christeson, G. L., N. L. Bangs, and T. H. Shipley, Deep Structure of an Island Arc Backstop, Lesser Antilles Subduction Zone, *J. Geophys. Res.*, *108*(B7), 2327, doi:10.1029/2002JB002243, 2003.

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Tréhu, A., M., N.L. Bangs, M.A. Arsenault, G. Bohrmann, C. Goldfinger, J.E. Johnson, Y. Nakamura, M.E. Torres, Complex subsurface plumbing beneath the southern Hydrate Ridge, Oregon continental margin, from high-resolution 3D seismic reflection and OBS data, *Fourth Int. Conf. Gas Hydrates*: Yokohama, Japan, 19023, 90-96, 2002.

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Taylor, B.L., Toyama, G., Yagi, H., and Zhao, Z., 2001, Data report: Structural setting of the Leg 190 Muroto transect. In Moore, G.F., Taira, A., Klaus, A., et al., Proc. ODP, Init. Repts., 190, 1-14 [CD-ROM]. Available from: Ocean Drilling Program, Texas A&M

2000

Zhao, Z., G. F. Moore, N. L. Bangs, and T. H. Shipley, Spatial variations of the decollement/protodecollement zone and their implications: A 3-D seismic inversion study of the northern Barbados accretionary prism, Island Arc, 9, 219-236, 2000.

Shipley, T.H., Bangs, N.L. and Henning, A.T., Sediment Velocity Estimation Using Iterative 3-D Migrations of Short Offset Seismic Reflection Data in Deep Water, *Marine Geophysical Researches*, 20, 479-494, 2000.

1999

Shipley, T. H., N. L. Bangs, and G. F. Moore, Shallow aseismic portion of the Barbados plate boundary, *Proc., Workshop on Recurrence of Great Interplate Earthquakes and Its Mechanism,* Sci. and Tech. Agency, Kochi, Japan,91-96, 1999

Bangs, N. L., T. H. Shipley, J. C. Moore, and G. F. Moore, Fluid accumulation and channeling along the northern Barbados Ridge décollement thrust, *J. Geophys. Res.*, 104, 20, 399 - 20,414, 1999.

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1997

Bangs, N. L., and S. C. Cande, Episodic development of a convergent margin inferred from structures and processes along the Southern Chile margin, *Tectonics*, 16, 489 - 503, 1997.

1996

Brown, K.M., N.L. Bangs, P. Froelich, and K. Kvenvolden, The nature, distribution, and origin of gas hydrate in the Chile Triple Junction region, *Earth and Planetary Science Letters*, 139, 471-483, 1996.

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1995

Moore, G.F., Z. Zhao, T.H. Shipley, N. Bangs, and J.C. Moore, Structural setting of the Leg 156 area, Northern Barbados Ridge accretionary prism: *In* Shipley, T. H., Ogawa, Y., Blum, P., et al., *Proceedings Ocean Drilling Program Init. Repts.*, v. 156, College Station, Texas (Ocean Drilling Program), 13-27, 1995.

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Bangs, N.L.B., D.S. Sawyer and X. Golovchenko, The cause of the bottom-simulating reflection in the vicinity of the Chile Triple Junction, *In* Lewis, S.D., Behrmann, J.H., Musgrave, R.J., and Cande, S.C. (Eds.), *Proc. ODP, Sci. Results*, 141: College Station, TX (Ocean Drilling Program), 243-252, 1995.

Brown, K. M., N. Bangs, K. Marsaglia, P. N. Froelich, Y. Zheng, B. M. Didyk, D. Prior, E.L. Richford, M. Torres, V. B. Kurnosov, N. Lindsley-Griffin, S. Osozawa, and A. Waseda, A summary of ODP Leg 141 hydrogeologic, geochemical, and thermal results, *In* Lewis, S.D., Behrmann, J.H., Musgrave, R.J., and Cande, S.C. (Eds.), *Proc. ODP, Sci. Results*, 141: College Station, TX (Ocean Drilling Program), 363-372, 1995.

1994

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1993

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1992

Bangs, N.L.B., S.C. Cande, S.D. Lewis, and J. J. Miller, Structural framework of the Chile margin at the Chile Ridge collision zone: *In* Behrmann, J.H., S.D. Lewis, R. J. Musgrave et al., *Proceedings Ocean Drilling Program Init. Repts.*, v. 141, College Station, Texas (Ocean Drilling Program), 11-21, 1992.

1991

Bangs, N. and G.K. Westbrook, Seismic modeling of the décollement zone at the base of the Barbados Ridge accretionary complex, *J. of Geophys. Res.*, 96, 3853-3866, 1991.

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