Curriculum Vitae for Christopher D. P. Baxter, Ph.D., P. E.

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Education

B.S. Tufts University (Civil Engineering), 1990.
M.S. Purdue University (Civil Engineering), 1994.
Ph.D. Virginia Tech (Civil Engineering), 1999.

Experience

Associate Professor, Departments of Ocean/Civil and Environmental Engineering, University of Rhode Island, 2000-present.
Post-doctoral fellow, Norwegian Geotechnical Institute/International Center for Geohazards, Oslo, 2007.
Post-doctoral fellow/Laboratory Manager, Marine Geomechanics Laboratory, Department of Ocean Engineering, University of Rhode Island, 1999-2000.
Instructor, Department of Civil Engineering, Virginia Tech, 1998-1999.
Research Assistant, Department of Civil Engineering, Virginia Tech, 1994-1999.
Research Assistant, Department of Civil Engineering, Purdue University, 1992-1994.
Geotechnical Engineer, GZA GeoEnvironmental, Inc., Trumbull, CT, 1990-1992.

Research Interests

Kinematics of Submarine Slope Failures
Numerical Simulation of Tsunami Hazard Maps for the US East Coast
The Role of Fluid Pressures in the Triggering of Tsunamogenic Landslides
Assessment of the Strength of Weakly Cemented Deepwater Sands Using Neural Networks
Liquefaction potential of silts
Time-Dependent Property Changes of Sands

Refereed Journal Publications

1. Baxter, C.D.P. and Ravi Sharma, M.S. Shear wave velocity of weakly cemented sand during drained and undrained triaxial compression, *Geotechnique* (submitted June 2009).
2. Baxter, C.D.P., Sharma, M.S.R., Moran, K., Vaziri, H., Narayanasamy, R. Use of Ā=0 as a Failure Criterion for Weakly Cemented Soils, *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE (submitted May 2009)
3. Paulson, M., Moran, K., Baxter, C.D.P., O'Regan, M., Ispas, I., and Sharma, R. Characterizing Weak and Poorly Consolidated Marine Sediments Using Neural Networks, *Canadian Geotechnical Journal* (submitted May 2009).
4. Sharma, R., O'Regan, M., Baxter, C., Moran, K., Vaziri, H., and Narayanasamy, R. Empirical Relationship Between Strength and Geophysical Properties for Weakly Cemented Formations, *Journal of Petroleum Science and Engineering* (submitted April 2009).

5. O'Regan, M., Moran, K., Baxter, C.D.P., Cartwright, J., Vogt, C., and Kölling, M. Ground Truthing Exploration in the Central Arctic Ocean: A Cenozoic Compaction History from the Lomonosov Ridge, *Basin Research* (in press).
6. Grilli, S.J., Taylor, O.-D., Baxter, C.D.P., and Maretzki, S. Probabilistic Approach for Determining Submarine Landslide Tsunami Hazard along the Upper East Coast of the United States, *Marine Geology,* 264, 74-97.
7. Baxter, C.D.P., Bradshaw, A.S., Green, R.A., and Wang J. (2008). A New Correlation Between Cyclic Resistance and Shear Wave Velocity for Silts, *ASCE Journal of Geotechnical and Geoenvironmental Engineering,* 134(1), pp. 37-46.
8. Bradshaw, A.S., Green, R.A., and Baxter, C.D.P. (2007). A Rational Approach for Evaluating Seismic Demand and Resistance at a Silt Site in Rhode Island, *Boston Society of Civil Engineers' Civil Engineering Practice Journal*, 22(1), pp. 5-18.
9. Bradshaw, A.S. and Baxter, C.D.P (2007). Sample Preparation of Silts for Liquefaction Testing, *ASTM Geotechnical Testing Journal,* 30(4), pp. 324-332.
10. Wang, J., Moran, K., and Baxter, C.D.P. (2006). Correlation between the Shear Wave Velocity and the Liquefaction Resistance of Offshore Saturated Sands and Silts, *ASCE Journal of Geotechnical and Geoenvironmental Engineering,* 132(12), pp. 1574-1580.
11. Bradshaw, A.S., Baxter, C.D.P., Tsiatas, G., Marinucci, A., Ressler, J. and Morgan, R. (2006). A Simple Dynamic Model for Fender Pile Analysis and Design, *ASCE Journal of Waterway, Port, Coastal, and Ocean Engineering*, 132(5), pp. 419-422.
12. Baxter, C.D.P. and Mitchell, J.K. (2004). An Experimental Study on the Aging of Sands, *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE, 130 (10), pp. 1051-1062.
13. Silva, A.J., Baxter, C.D.P., LaRosa, P.T., and Bryant, W.R. (2004). Investigation of Mass Wasting on the Continental Slope and Rise, *Marine Geology,* 203 (3-4), 355-366.
14. Fox, P. J. and Baxter, C. D. P. (1997). "Consolidation Properties of Soft Soils from the Hydraulic Consolidation Test," *Journal of Geotechnical and Geoenvironmental Engineering*, 123(8), pp. 770-776.

Refereed Conference Publications

1. Baxter, C.D.P., Bradshaw, A.S., Ochoa-Lavergne, M., and Hankour, R. DSS Test Results Using Wire-Reinforced Membranes and Stacked Rings, *GeoFlorida 2010,* ASCE (Accepted for Publication).
2. El Bettah, M., S.T. Grilli, C.D.P. Baxter, K. Bollinger, M. Krafczyk and C. Janssen (2008). A microfluidics study of the triggering of underwater landslides by earthquakes. *In Proc. 18th Offshore and Polar Engng. Conf. (ISOPE08, Vancouver, Canada, July 2008)*, 8 pps.
3. Green, R.A., Hryciw, R.D., Saftner, D.A., Baxter, C.D.P., and Jirathanathaworn, T. (2008). Sand Aging Field Study, *Proceedings of the 4th Decennial Geotechnical Earthquake Engineering and Soil Dynamics Conference, GEESD IV*, ASCE.
4. Taylor, O.S. Bradshaw, A.S. Baxter, C.D.P., Grilli, S.T. (2008). The Effects of Basal Resistance and Hydroplaning on the Initial Kinematics of Seismically Induced Tsunamigenic Landslides, *Proceedings of GeoCongress 2008: Geosustainability and Geohazard Mitigation (GSP 178)*, pp. 522-529.

5. Bradshaw, A.S. Baxter, C.D.P. Taylor, O., and Grilli, S.T. (2007). Role of Basal Resistance on the Initial Acceleration of Tsunamigenic Landslides, *3rd International Conference on Submarine Mass Movements and Their Consequences*, Santorini, Italy, 387-394.

6. Maretzki, S., Grilli, S., and Baxter, (2007). Probabilistic SMF Tsunami Hazard Assessment for the upper East Coast of the United States, *3rd International Conference on Submarine Mass Movements and Their Consequences,* Santorini, Italy, pp. 377-385.

7. Bradshaw, A.S., Miller, H., and Baxter, C.D.P. (2007). Monitoring Ground Movements of a Braced Cut in Providence Silt, 7th International Symposium on Field Measurements in Geomechanics, Boston.

8. Bradshaw, A.S., Baxter, C.D.P., and Green, R.A. (2007). A Site-Specific Comparison of Simplified Procedures for Evaluating Cyclic Resistance of Non-Plastic Silt, *GeoDenver 2007*, Geotechnical Special Publication 160, ASCE.

9. Bradshaw, A., Baxter, C.D.P., and Osborn, P. (2004). Lessons Learned from Pile Driving on the Central Artery/ Tunnel Project, *Advances in Deep Foundations,* Geotechnical Special Publication No. 132, ASCE.

10. Baxter, C.D.P., King, J.K., Silva, A.J., Page, M., and Calabretta, V.V. (2004). Site Characterization of Dredged Sediments and Evaluation of Beneficial Uses, *Recycled Materials in Geotechnics,* Geotechnical Special Publication No. 127, ASCE, pp. 150-161.

11. Baxter, C.D.P, King, J.W., Silva, A.J., and Bryant, W.R. (2003). Investigation of the Age of Submarine Slope Failures in the Gulf of Mexico, *Proceedings of the International Society of Offshore and Polar Engineers Conference,* June, Honolulu.

12. Mitchell, J. K., Baxter, C. D. P., and Munson, T. C. (1995). "Performance of Improved Ground During Earthquakes," *Soil Improvement for Earthquake Hazard Mitigation*, Geotechnical Special Publication No. 49, ASCE, pp. 1-36.

13. Baxter, C. D. P., Fox, P. J., and Leonards, G. A. (1995). "Gradient Effects on Measured Hydraulic Conductivity," Proceedings of *Geoenvironment 2000*, Geotechnical Special Publication No. 46, ASCE, pp. 746-757.

Non-Refereed Conference Publications

1. Mosher, D.C., Moscardelli, L., Shipp, R.C., Chaytor, J.D., Baxter, C.D.P., Lee, H.J., and Urgeles, R. (2009). Submarine mass movements and their consequences IV, *4th International Conference on Submarine Mass Movements and Their Consequences*, Austin, Texas.

2. Paulson, M., Ressler, J., Moran, K., and Baxter, C. D. P. (2006). "Prediction of Sediment Undrained Shear Strength from Geophysical Logs using Neural Networks," *Proceedings of the Offshore Technology Conference*, Houston, Texas.

3. Ressler, J., Baxter, C.D.P, Moran, K., Paulson, Ispas, I. and Vaziri, H. (2006). Assessment of Formation Strength from Geophysical Well Logs Using Neural Networks, *ASCE GeoCongress 2006*, February, 2006.

4. Baxter, C.D.P., Soltau, B., King, J. W., Lewis, C., and Coakley, J. P. (2004). Use of Subaqueous Slope Failures to Study the Paleoseismicity of Eastern North America, *Eos Trans. AGU, 85*(17), Jt. Assem. Suppl., Abstract S21A-04.

5. Silva, A. J., LaRosa, P. T., Brausse, M., Baxter, C. D. P., and Bryant, W. R. (2001). "Stress States of Marine Sediments in Plateau and Basin Slope Areas of the Northwestern Gulf of Mexico," *Proceedings of the Offshore Technology Conference*, OTC 13157, Houston, Texas.

6. Silva, A. J., Baxter, C. D. P., Bryant, W., Bradshaw, A., and LaRosa, P. T. (2000). "Stress-Strain Behavior and Stress State of Gulf of Mexico Clays in Relation to Slope Processes," *Proceedings of the Offshore Technology Conference*, OTC 12091, Houston, Texas.
7. Mitchell, J. K., Baxter, C. D. P., and Soga, K. (1997). "Time Effects on the Stress-Deformation Behavior of Soils," Proceedings of *Professor Sakuro Murayama Memorial Symposium*, Kyoto, Japan, pp. 1-64.

Abstracts

1. Baxter, C.D.P., Hu, J.S., Hensel, J., and Sharma, R. (2009). Development of a Technology Type Factor for Jacket Structures Supporting Offshore Wind Turbines in Rhode Island Sound, 1st Annual MREC Technical Conference, Fall River, MA, October 15.
2. Green, R.A., Baxter, C.D.P., Hryciw, R.D., Mitchell, J.K., Saftner, D., and Jirathanathaworn, T. (2006). NEESR II: Mechanisms and Implications of Time-Dependent Changes in the State and Properties of Recently Liquefied Sands, *Proc. Fourth NEES Annual Meeting*, Washington, DC, June 21-23.
3. Baxter, C.D.P., Moran, K., Paulson, M., Ispas, I., and Vaziri, H. (2006). Assessment of Formation Strength from Geophysical Well Logs Using Neural Networks, *Proceedings of the 23rd Southeastern Conference on Theoretical and Applied Mechanics*, Mayaguez, Puerto Rico, May 21-23.
4. Tender, L. M.,1, Lowy D., Gray, S., Tyce R., Baxter, C. D. P., Flynn, D., Leclerc, M., Book, J., Hulbert, P., Hwang, P., and Walsh, D. (2005). Microbial-based Power Generation in Marine Environments, Division of Geochemistry, *230th American Chemical Society National Meeting*, Washington, DC, Aug 28-Sept 1.
5. Moran, K., Baxter, C. D. P., Grilli, S., and Watts, P. (2004) A North Atlantic Tsunamogenic Landslide Case History, the1929 Grand Banks Event, *The 32nd International Geological Congress (32IGC)*, Topical Symposium SESSION T11.15: Tsunami hazard from slope instability.

Technical Reports

1. Bradshaw, A. and Baxter, C.D.P. (2006). Design and Construction of Driven Pile Foundations – Lessons Learned on the Central Artery/Tunnel Project, FHWA-HRT-05-159, 58 pg.

Ph.D. Students

1. Bradshaw, Aaron (2006). Liquefaction Potential of Silts, Ph.D., Department of Civil and Environmental Engineering.

2. Sharma, Ravi (expected 2009). Characterization of Weakly Cemented Sands Using Geophysical Logs, Department of Ocean Engineering.

3. Taylor, Oliver (expected 2010). Settlement of Adjacent Ground due to Pile Driving in Silts.

M.S. Students

4. Boll, Philip (2001). Assessment of Submarine Slope Stability in the Gulf of Mexico using Geographic Information Systems, M.S. Thesis, Department of Civil and Environmental Engineering.

5. Kranz, Joachim (2001). Numerical Modeling of the Settlement of a Landfill Cap Under New Loading Conditions, M.S. Thesis, Department of Civil and Environmental Engineering.

6. Gummert, Maren (2003). Evaluation of the Drivability of Composite Piles, M.S. Thesis, Department of Civil and Environmental Engineering.

7. Soltau, Bjoern (2003). Evaluation of Paleoseismicity of Eastern North America from Subaqueous Slope Failures, M.S. Thesis, Department of Civil and Environmental Engineering.

8. Bruninghold, Max (2004). Effect of Toe Displacement on Pile Capacity from Thirty Static and Dynamic Load Tests, M.S. Thesis, Department of Civil and Environmental Engineering.

9. Page, Mathew (2004). An Evaluation of Sample Disturbance and Strength Parameters of Rhode Island Silts, M.S. Thesis, Department of Civil and Environmental Engineering.

10. Ressler, Jason (2005). Estimation of Shear Strength from Geophysical Log Data using Neural Networks, M.S. Thesis, Department of Ocean Engineering.

11. Hanchar, Scott (2006). A Comparison of Bender Elements and Torsional Shear Wave Transducers, M.S. Thesis, Department of Ocean Engineering.

12. Franzen, Jan-Hendrick (2006). Mini-Cone Penetration Resistance of Silts, M.S. Thesis, Department of Civil and Environmental Engineering.

13. Gemme, Doug (2008). Effect of Particle Size on Dynamic Pore Pressure Build Up in Soils, M.S. Thesis, Department of Ocean Engineering.

14. Leclerc, Meghan (2008). Evaluation of Gas Dissipation as a Mechanism for Aging of Sands, M.S. Thesis, Department of Civil and Environmental Engineering.

15. Jasinski, Jeffrey (2008). Mini-Cone Chamber Testing of Silt, M.S. Thesis, Department of Civil and Environmental Engineering.

16. Taylor, Oliver (2008). Probabilistic Tsunami Hazard Assessment for the Northeast United States, M.S. Thesis, Department of Civil and Environmental Engineering.

17. Hoffman, Wilhelm (2008). Evaluation of Real Cohesion for a Weakly Cemented Sand, M.S. Thesis, Department of Civil and Environmental Engineering, University of Rhode Island.

18. Seher, Norman (2008). Mini-Cone Chamber Testing and Liquefaction of Silt, M.S. Thesis, Department of Civil and Environmental Engineering.

19. Hensel, Jonas (2009). Jacket Structures for Offshore Wind Turbines in Rhode Island, M.S. Thesis, Department of Ocean Engineering.

20. Trautmann, Jan (2009). Volume Change Behavior of Silts During Cyclic Loading, M.S. Thesis, Department of Civil and Environmental Engineering.

21. Jander, Michael (2009). Small Strain Shear Modulus Degredation of Cemented Sand During Drained Shear, M.S. Thesis, Department of Civil and Environmental Engineering, University of Rhode Island.

22. Hebinck, Ursula (2009). M.S. Thesis

23. Bollinger, Kevyn (expected 2010). Pore Pressure Generation Surrounding a Pile Subjected to Wave Loading, M.S. Thesis, Department of Ocean Engineering.

24. Nunez, Andres (expected 2010). M.S. Thesis

25. Hallum, David (expected 2010). M.S. Thesis

26. Haffke, Stefanie (expected 2010). M.S. Thesis