

# Jonathan D. Phillips—Curriculum Vita

Professor  
Department of Geography  
University of Kentucky

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## **Employment and Professional Experience**

- Professor, Department of Geography, University of Kentucky, 2000 – present.  
University Research Professor, 2006-present.
- Professor and Head, Department of Geography, College of Geosciences, Texas A&M University, 1997 - 2000.
- Assistant to Full Professor, Department of Geography, East Carolina University, 1988-1997. Also adjunct professor of geology.
- Assistant Professor, Department of Geography, Arizona State University, 1986-1988.
- Executive Director, Pamlico-Tar River Foundation, Washington, N.C., 1984-86.
- Various part-time research and teaching positions: Rutgers University, East Carolina University, Pitt County Community College; 1980-1984.
- Various full- and part-time journalism positions: Washington, N.C., Vanceboro, N.C., Christiansburg, Va., 1977-84.

## **Education**

Ph.D., 1985, Rutgers University. Major: Geography/Geomorphology.

M.A., 1982, East Carolina University. Major: Physical Geography.

B.A., 1979, Virginia Tech. Major: Communications. Minor: Environmental science.

North Carolina High School Equivalency Certificate, 1975.

## **Publications--refereed articles, chapters, and books**

(\*indicates student at time of submission).

Phillips, J.D. 2009. Landscape evolution space and the relative importance of geomorphic processes and controls. *Geomorphology* (accepted for publication).

Phillips, J.D. 2009. Changes, perturbations, and responses in geomorphic systems. *Progress in Physical Geography* (accepted for publication).

- Phillips, J.D. 2009. Biological energy in landscape evolution. *American Journal of Science* (in press).
- Phillips, J.D. 2009. Soils as extended composite phenotypes. *Geoderma* 149: 143-151.
- Phillips, J.D. 2009. Avulsion regimes in southeast Texas rivers. *Earth Surface Processes and Landforms* 34: 75-87.
- Phillips, J.D., \*Lutz, J.D. 2008. Profile convexities in bedrock and alluvial streams. *Geomorphology* 102: 554-566.
- Phillips, J.D., Marion, D.A., Turkington, A.V. 2008. Pedologic and geomorphic impacts of a tornado blowdown event in a mixed pine-hardwood forest. *Catena* 75: 278-287.
- Phillips, J.D., Lorz, C. 2008. Origins and implications of soil layering. *Earth-Science Reviews* 89: 144-155.
- Phillips, J.D. 2008. Soil system modeling and generation of field hypotheses. *Geoderma* 145: 419-425.
- Phillips, J.D. 2008. Geomorphic controls and transition zones in the lower Sabine River. *Hydrological Processes* 22: 2424-2437.
- Phillips, J.D. 2008. Goal functions in ecosystem and biosphere evolution. *Progress in Physical Geography* 32: 51-64.
- Phillips, J.D., Slattery, M.C. 2008. Antecedent alluvial morphology and sea level controls on form-process transition zones in the lower Trinity River, Texas. *River Research and Applications* 24: 293-309.
- Phillips, J.D., Turkington, A.V., Marion, D.A. 2008. Weathering and vegetation effects in early stages of soil formation. *Catena* 72: 21-28.
- Phillips, J.D., 2007. Perfection and complexity in the lower Brazos River. *Geomorphology* 91: 364-377.
- Phillips, J.D., Marion, D.A., 2007. Soil geomorphic classification, soil taxonomy, and effects on soil richness assessments. *Geoderma* 141: 89-97.
- Phillips, J.D., Gomez, B. 2007. Controls on sediment export from the Waipaoa River basin, New Zealand. *Basin Research* 19: 241-252.
- Phillips, J.D., 2007. Formation of texture contrast soils by a combination of bioturbation and translocation. *Catena* 70: 92-104.
- Phillips, J.D. 2007. The perfect landscape. *Geomorphology* 84: 159-169.

Phillips, J.D., Marden, M., Gomez, B. 2007. Residence time of alluvium in an aggrading fluvial system. *Earth Surface Processes and Landforms* 32: 307-316.

Phillips, J.D., Slattery, M.C., 2007. Downstream trends in discharge, slope, and stream power in a coastal plain river. *Journal of Hydrology* 334: 290-303.

Chin, A., Phillips, J.D. 2007. The self-organization of step-pools in mountain streams. *Geomorphology* 83: 346-358.

Phillips, J.D. 2006. Evolutionary geomorphology: thresholds and nonlinearity in landform response to environmental change. *Hydrology and Earth System Sciences* 10: 731-742.

Slattery, M.C., Gares, P.A., Phillips, J.D. 2006. Multiple modes of runoff generation in a North Carolina coastal plain watershed. *Hydrological Processes* 20: 2953-2969.

Phillips, J.D., Slattery, M.C. 2006. Sediment storage, sea level, and sediment delivery to the ocean by coastal plain rivers. *Progress in Physical Geography* 30: 513-530.

Lorz, C., Phillips, J.D. 2006. Pedo-ecological consequences of lithological discontinuities in soils--examples from Central Europe. *Journal of Plant Nutrition and Soil Science* 169: 573-581.

Phillips, J.D., Marion, D.A. 2006. The biomechanical effects of trees on soils and regoliths: beyond treethrow. *Annals of the Association of American Geographers* 96: 233-247.

Phillips, J.D. 2006. Deterministic chaos and historical geomorphology: A review and look forward. *Geomorphology* 76: 109-121.

Gares, P.A., Slattery, M.C., Pease, P., Phillips, J.D. 2006. Eolian sediment transport on North Carolina Coastal Plain Agricultural Fields. *Soil Science* 171: 784-799.

Phillips, J.D., Slattery, M.C., \*Musselman, Z.A. 2005. Channel adjustments of the lower Trinity River, Texas, downstream of Livingston Dam. *Earth Surface Processes and Landforms* 30: 1419-1439.

Wellmeyer, J.L., Slattery, M.C., Phillips, J.D. 2005. Quantifying downstream impacts of impoundment on flow regime and channel planform, lower Trinity River, Texas. *Geomorphology* 69: 1-13.

Phillips, J.D., Marion, D.A., Luckow, K., \*Adams, K.R. 2005. Nonequilibrium regolith thickness in the Ouachita Mountains. *Journal of Geology* 113: 325-340.

Phillips, J.D., Luckow, K., Marion, D.A., \*Adams, K.R. 2005. Rock fragment distributions and regolith evolution in the Ouachita Mountains. *Earth Surface Processes and Landforms* 30: 429-442.

Phillips, J.D., 2005. Weathering, instability, and landscape evolution. *Geomorphology* 67: 255-272. Special issue on Weathering and Landscape Evolution, Proceedings of the 35th Binghamton Geomorphology Symposium. Turkington, A.V., Campbell, S.W., Phillips, J.D., editors.

Turkington, A.V., Phillips, J.D., Campbell, S.W. 2005. Weathering and landscape evolution: introduction. *Geomorphology* 67: 1-6. Special issue on Weathering and Landscape Evolution, Proceedings of the 35th Binghamton Geomorphology Symposium. Turkington, A.V., Campbell, S.W., Phillips, J.D., editors.

Phillips, J.D. 2005. Entropy analysis of multiple scale causality and qualitative causal shifts in spatial systems. *Professional Geographer* 57: 83-93.

Phillips, J.D., Marion, D.A. 2005. Biomechanical effects, lithological variations, and local pedodiversity in some forest soils of Arkansas. *Geoderma* 124: 73-89.

Yeager, K.M., Santschi, P.H., Phillips, J.D., Herbert, B.E. 2005. Suspended sediment sources and tributary effects in the lower reaches of a coastal plain stream as indicated by radionuclides, Loco Bayou, Texas. *Environmental Geology* 47: 382-395.

Phillips, J.D. 2004. Geogenesis, pedogenesis and multiple causality in the formation of texture-contrast soils. *Catena* 58: 275-295.

Phillips, J.D. 2004. Divergence, sensitivity, and nonequilibrium in ecosystems. *Geographical Analysis* 36: 369-383.

Phillips, J.D., Slattery, M.C., \*Musselman, Z.A. 2004. Dam-to-delta sediment inputs and storage in the lower Trinity River, Texas. *Geomorphology* 62: 17-34.

Phillips, J.D., \*Walls, M.D. 2004. Flow partitioning and unstable divergence in fluvio karst evolution in central Kentucky. *Nonlinear Processes in Geophysics* 11: 371-381.

Phillips, J.D., \*Martin, L.L., \*Nordberg, V.G., \*Andrews, W.A. 2004. Divergent evolution in fluvio karst landscapes of central Kentucky. *Earth Surface Processes and Landforms* 29: 799-819.

Turkington, A.V., Phillips, J.D. 2004. Cavernous weathering, dynamical instability and self-organization. *Earth Surface Processes and Landforms* 29: 665-675.

Phillips, J.D. 2004. Doing justice to the law. *Annals of the Association of American Geographers* 94: 290-293.

Phillips, J.D. 2004. Independence, contingency, and scale linkage in physical geography. *Scale and Geographic Inquiry. Nature, Society, and Method* (E. Sheppard, R.B. McMaster, eds.). Oxford: Blackwell, pp. 86-100.

- Phillips, J.D. 2004. Laws, contingencies, irreversible divergence, and physical geography. *Professional Geographer* 56: 37-43.
- Phillips, J.D., Marion, D.A. 2004. Pedological memory in forest soil development. *Forest Ecology and Management* 188: 363-380.
- Phillips, J.D. 2003. Impacts of surface mine valley fills on headwater floods in eastern Kentucky. *Environmental Geology* 45: 367-380.
- Phillips, J.D. 2003. Alluvial storage and the long term stability of sediment yields. *Basin Research* 15: 153-163.
- Phillips, J.D. 2003. Sources of nonlinear complexity in geomorphic systems. *Progress in Physical Geography* 26: 339-361.
- Phillips, J.D. 2003. Toledo Bend Reservoir and geomorphic response in the lower Sabine River. *River Research and Applications* 19: 137-159.
- Phillips, J.D., \*Musselman, Z.A. 2003. The effect of dams on fluvial sediment delivery to the Texas coast. *Coastal Sediments '03*. Proceedings of the 5th International Symposium on Coastal Engineering and Science of Coastal Sediment Processes, Clearwater Beach, Florida, p. 1-14.
- Phillips, J.D. 2002. Geomorphic impacts of flash flooding in a forested headwater basin. *Journal of Hydrology* 269: 236-250.
- \*Yeager, K.M., Santschi, P.H., Phillips, J.D., Herbert, B.E. 2002. Sources of alluvium in a coastal plain stream based on radionuclide signatures from the <sup>238</sup>U and <sup>232</sup>Th decay series. *Water Resources Research* 38: 1243, doi: 10.1029/2001WR000956.
- Slattery, M.C., Gares, P.A., Phillips, J.D. 2002. Slope-channel linkage and sediment delivery on North Carolina coastal plain cropland. *Earth Surface Processes and Landforms* 27: 1377-1387. T
- Phillips, J.D. 2002. Erosion, isostasy, and the missing peneplains. *Geomorphology* 45: 225-241.
- Phillips, J.D. 2002. Spatial structures and scale in categorical maps. *Geographical and Environmental Modelling* 6: 41-57.
- Phillips, J.D. 2002. Global and local factors in earth surface systems. *Ecological Modelling* 149: 257-272.
- Phillips, J.D. 2001. Human impacts on the environment and the primacy of place. *Physical Geography* 22: 321-332.
- Phillips, J.D. 2001. The relative importance of intrinsic and extrinsic factors in pedodiversity. *Annals of the Association of American Geographers* 91: 609-621.

- Phillips, J.D. 2001. Contingency and generalization in pedology, as exemplified by texture-contrast soils. *Geoderma* 102: 347-370.
- Phillips, J.D. 2001. Inherited versus acquired complexity in east Texas weathering profiles. *Geomorphology* 40: 1-14.
- Phillips, J.D., Marion, D.A. 2001. Residence times of alluvium in an east Texas stream as indicated by sediment color. *Catena* 45: 49-71.
- Phillips, J.D. 2001. Sedimentation in bottomland hardwoods downstream of an east Texas dam. *Environmental Geology* 40: 860-868.
- Phillips, J.D. 2001. Divergent evolution and the spatial structure of soil landscape variability. *Catena* 43: 101-113.
- Phillips, J.D. 2000. Rapid development of ferricretes on a subtropical valley side slope. *Geografiska Annaler* 82A: 69-78.
- Phillips, J.D. 2000. Signatures of divergence and self-organization in soils and weathering profiles. *Journal of Geology* 108: 91-102.
- Phillips, J.D. 1999. Methodology, scale, and the field of dreams. *Annals of the Association of American Geographers* 89: 754-760.
- Phillips, J.D. 1999. Spatial analysis in physical geography and the challenge of deterministic uncertainty. *Geographical Analysis* 31: 359-372.
- Phillips, J.D. 1999. Divergence, convergence, and self-organization in landscapes. *Annals of the Association of American Geographers* 89: 466-488.
- Phillips, J.D., Slattery, M.C., Gares, P.A. 1999. Truncation and accretion of soil profiles on coastal plain croplands: Implications for sediment redistribution. *Geomorphology* 28: 119-140.
- Phillips, J.D. 1999. Edge effects in geomorphology. *Physical Geography* 20: 53-66.
- Phillips, J.D., Gares, P.A., Slattery, M.C. 1999. Agricultural soil redistribution and landscape complexity. *Landscape Ecology* 14: 197-211.
- Phillips, J.D. 1999. Event timing and sequence in coastal shoreline erosion: Hurricanes Bertha and Fran and the Neuse estuary. *Journal of Coastal Research* 15: 616-623.
- Phillips, J.D. 1999. *Earth Surface Systems. Complexity, Order, and Scale*. Oxford, UK: Basil Blackwell.
- Gomez, B., Phillips, J.D. 1999. Deterministic uncertainty in bedload transport. *Journal of Hydraulic Engineering* 125: 305-308.

Phillips, J.D., \*Golden, H., \*Cappiella, K., \*Andrews, B., \*Middleton, T., \*Downer, D., \*Kelli, D., \*Padrick, L. 1999. Soil redistribution and pedologic transformations on coastal plain croplands. *Earth Surface Processes and Landforms* 24: 23-39.

Phillips, J.D. 1998. On the relations between complex systems and the factorial model of soil formation (with discussion and response). *Geoderma* 86: 1-43.

Slattery, M.C., Gares, P.A., Phillips, J.D. 1998. Quantifying soil erosion and sediment delivery on North Carolina coastal plain croplands. *Conservation Voices* 1(2): 20-25.

Magilligan, F.J., Phillips, J.D., Gomez, B., James, L.A. 1998. Geomorphic and sedimentological controls on the effectiveness of an extreme flood. *Journal of Geology* 106: 87-95.

Gomez, B., Phillips, J.D., Magilligan, F.J., James, L.A. 1997. Floodplain sedimentation and sensitivity. *Earth Surface Processes and Landforms* 22: 923-936.

Phillips, J.D. 1997. Human agency, Holocene sea level, and floodplain accretion in coastal plain rivers. *Journal of Coastal Research* 13: 854-866.

Phillips, J.D. 1997. A short history of a flat place: Three centuries of geomorphic change in the Croatan. *Annals of the Association of American Geographers* 87: 197-216.

Phillips, J.D. 1997. Humans as geological agents and the question of scale. *American Journal of Science* 297: 98-115.

Phillips, J.D. 1997. Simplexity and the reinvention of equifinality. *Geographical Analysis* 29: 1-15.

Phillips, J.D., \*Lampe, M., \*King, R.T., \*Cedillo, M., \*Beachley, R., \*Grantham, C. 1997. Ferricrete formation in the North Carolina Coastal Plain. *Zeitschrift fur Geomorphologie*. 41: 67-81.

Phillips, J.D. 1996. Natural and legal shoreline buffers. In *Estuarine Shores* (K. Nordstrom, C. Roman, eds.). New York: John Wiley, pp. 449-465.

Phillips, J.D., \*Perry, D., \*Carey, K., \*Garbee, A.R., \*Stein, D., \*Morde, M.B., \*Sheehy, J. 1996. Deterministic uncertainty and complex pedogenesis in some Pleistocene dune soils. *Geoderma* 73: 147-164.

Phillips, J.D. 1996. Nonlinear dynamics and predictability in geomorphology. In *The Scientific Nature of Geomorphology* (B. Rhoads, C. Thorn, eds.). Proceedings of the 27th Binghamton Geomorphology Symposium. New York: John Wiley, pp. 315-336.

Phillips, J.D. 1996. Wetland buffers and runoff hydrology. In *Wetlands: Buffers, Boundaries, & Gradients* (G. Mulamootil, B.G. Warner, E.A. McBean, eds.). Boca Raton, FL: Lewis Publishers, pp. 207-220.

Phillips, J.D., Renwick, W.H. 1996. Surface instability and human modification in geomorphic systems. In *Companion Encyclopedia of Geography: The Environment and Humankind* (I. Douglas, R. Huggett, M. Robinson, eds.) London: Routledge, pp. 553-572.

Gomez, B., Mertes, L., Phillips, J.D., Magilligan, F.J., James, L.A. 1995. Sediment characteristics on an extreme flood: 1993 Upper Mississippi River valley. *Geology* 23: 963-6.

Phillips, J.D. 1995. Self-organization and landscape evolution. *Progress in Physical Geography* 19: 309-21.

Phillips, J.D. 1995. Nonlinear dynamics and the evolution of relief. *Geomorphology* 14:57-64.

Phillips, J.D. 1995. Biogeomorphology and landscape evolution: The problem of scale. *Geomorphology* 13: 337-47. Also published in *Biogeomorphology: Terrestrial and Freshwater Systems* (Proceedings of the 26th Binghamton Geomorphology Symposium).

Phillips, J.D. 1995. Decoupling of sediment sources in large river basins. *Effects of Scale on Interpretation and Management of Sediment and Water Quality*. (W.R. Osterkamp, ed.). International Association of Hydrological Sciences publication 226, p. 11-16.

Phillips, J.D. 1995. Time lags and emergent stability in morphogenic/pedogenic system models. *Ecological Modelling* 78: 267-76.

Phillips, J.D. 1994. The forgotten hardwoods of the coastal plain. *The Geographical Review* 84: 162-171.

Phillips, J.D. 1994. Deterministic uncertainty in landscapes. *Earth Surface Processes and Landforms* 19: 389-401.

Phillips, J.D., \*Gosweiler, J., \*Tollinger, M., \*Mayeux, S., \*Gordon, R., \*Altieri, T., \*Wittmeyer, M. 1994. Edge effects and spatial variability in coastal plain Ultisols. *Southeastern Geographer* 34:125-137.

Phillips, J.D. 1993. Chaotic evolution of some coastal plain soils. *Physical Geography* 14: 566-580.

Phillips, J.D. 1993. Biophysical feedbacks and the risks of desertification. *Annals of the Association of American Geographers* 83:630-640.

Phillips, J.D. 1993. Progressive and regressive pedogenesis and complex soil evolution. *Quaternary Research* 40:169-176.

Phillips, J.D. 1993. Stability implications of the state factor model of soils as a nonlinear dynamical system. *Geoderma* 58:1-15.

- Phillips, J.D. 1993. Pre- and post-colonial sediment sources and storage in the lower Neuse River basin, North Carolina. *Physical Geography* 14: 272-284.
- Phillips, J.D., \*Wyrick, M., \*Robbins, G., \*Flynn, M. 1993. Accelerated erosion on the North Carolina Coastal Plain. *Physical Geography* 14:114-130.
- Phillips, J.D. 1993. The source of sediments in the Neuse River estuary: Water quality management implications. *Coastal Zone '93* (O.T. Magoon, et al., eds.). New York: American Society of Civil Engineers, pp. 883-892.
- \*Belk, D.R., Phillips, J.D. 1993. Hydrologic recovery of artificially-drained wetlands in coastal North Carolina. *Coastal Zone '93* (O.T. Magoon, ed.). New York: American Society of Civil Engineers, pp. 3254-3268.
- Phillips, J.D. 1993. Spatial-domain chaos in landscapes. *Geographical Analysis* 25: 101-117.
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- Phillips, J.D. 1993. Instability and chaos in hillslope evolution. *American Journal of Science* 293:25-48.
- Phillips, J.D. 1992. Delivery of upper-basin sediment to the lower Neuse River, North Carolina, U.S.A. *Earth Surface Processes and Landforms* 17: 699-709.
- Phillips, J.D. 1992. *Geomorphic Systems*. Amsterdam: Elsevier. (Edited with W.H. Renwick). Published as hardcover book, and as a special issue of *Geomorphology*, vol. 5.
- Phillips, J.D. 1992. The end of equilibrium? In *Geomorphic Systems*, above. *Geomorphology* 5: 195-201.
- Trofimov, A.M., Phillips, J.D. 1992. Theoretical and methodological premises of geomorphological forecasting. In *Geomorphic Systems*, above. *Geomorphology* 5: 203-211.
- Phillips, J.D. 1992. Nonlinear dynamical systems in geomorphology: Revolution or evolution? In *Geomorphic Systems*, above. *Geomorphology* 5: 219-229.
- Phillips, J.D. 1992. Deterministic chaos in surface runoff. In *Overland Flow: Hydraulics and Erosion Mechanics* (A.J. Parsons, A.D. Abrahams, eds.). London: UCL Press, pp. 177-197.
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Phillips, J.D. 1991. Fluvial sediment budgets in the North Carolina Piedmont. *Geomorphology* 4: 231-241.

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- Phillips, J.D. 1988. Incorporating fluvial change in hydrologic simulations: A case study in coastal North Carolina. *Applied Geography* 8: 25-36.
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- Phillips, J.D. 1986. Sediment storage, sediment yield, and time scales in landscape denudation studies. *Geographical Analysis* 18: 161-167.
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- Phillips, J.D. 1986. Measuring complexity of environmental gradients. *Vegetatio* 64: 95-102.
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- Phillips, J.D. 1985. Stability of artificially-drained lowlands: A theoretical assessment. *Ecological Modelling* 27: 69-79.
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### **Project and technical reports, commentaries, etc.**

Phillips, J.D. 2008. Review of "Useless Arithmetic: Why Environmental Scientists Can't Predict the Future." *Professional Geographer*

Phillips, J.D. 2007. Field Data Collection in Support of Geomorphic Classification of in the lower Brazos and Navasota Rivers. Phase 2 of the Project: Geomorphic Context, Constraints, and Change in the lower Brazos and Navasota Rivers, Texas. Austin: Texas Instream Flow Program:

[http://www.twdb.state.tx.us/RWPG/rpfgm\\_rpts.asp.0604830639](http://www.twdb.state.tx.us/RWPG/rpfgm_rpts.asp.0604830639).

Phillips, J.D. 2007. Geomorphic Equilibrium in Southeast Texas Rivers. Austin: Texas Water Development Board:

[http://www.twdb.state.tx.us/RWPG/rpfgm\\_rpts.asp.0605830636](http://www.twdb.state.tx.us/RWPG/rpfgm_rpts.asp.0605830636).

Phillips, J.D., Slattery, M.C. 2007. Geomorphic Processes, Controls, and Transition Zones in the lower Sabine River. Austin: Texas Instream Flow Program:

[http://www.twdb.state.tx.us/RWPG/rpfgm\\_rpts.asp.0600010595](http://www.twdb.state.tx.us/RWPG/rpfgm_rpts.asp.0600010595).

Phillips, J.D. 2006. Geomorphic Context, Constraints, and Change in the lower Brazos and Navasota Rivers, Texas. Austin: Texas Instream Flow Program:

[http://www.twdb.state.tx.us/RWPG/rpfgm\\_rpts.asp.0605483564](http://www.twdb.state.tx.us/RWPG/rpfgm_rpts.asp.0605483564).

Phillips, J.D., Slattery, M.C., 2004. Geomorphic Impacts of Lake Livingston on the Lower Trinity River. Austin: Texas Water Development Board:

[http://www.twdb.state.tx.us/RWPG/rpfgm\\_rpts.2003483442](http://www.twdb.state.tx.us/RWPG/rpfgm_rpts.2003483442).

Phillips, J.D. 2003. Sediment Delivery and Channel Change on the Lower Trinity River, Texas. Austin: Texas Water Development Board:

[http://www.twdb.state.tx.us/RWPG/rpfgm\\_rpts.2002483440](http://www.twdb.state.tx.us/RWPG/rpfgm_rpts.2002483440).

Phillips, J.D. 2003. Sediment Retention in Stream Corridors of the Lower Trinity River, Texas. Austin: Texas Water Development Board:

[http://www.twdb.state.tx.us/RWPG/rpfgm\\_rpts.2002483442](http://www.twdb.state.tx.us/RWPG/rpfgm_rpts.2002483442)

Phillips, J.D., \*Yeager, K., Bowman, J.A. 2002. Suspended Sediment Retention in Bottomland Hardwood Forest Stream Corridors of the Upper Angelina River Basin, Texas. Final Report to the Texas Water Development Board, Austin.

Slattery, M.C., Gares, P.A., Phillips, J.D. 2001. Linking the field to the river: runoff and sediment delivery in a North Carolina coastal plain drainage basin", in J. C. Ascough and D. C. Flanagan (eds), *Soil erosion for the 21st Century*, Proceedings of the International Symposium, American Society of Agricultural Engineers, 641-644. Third author, with M.C. Slattery and P.A. Gares.

Phillips, J.D. 2000. Geomorphological equilibrium. *Oxford Companion to the Earth* (P.L. Hancock, B.J. Skinner, eds), pp. 427-428.

Phillips, J.D. 2000. Geomorphological systems. *Oxford Companion to the Earth* (P.L. Hancock, B.J. Skinner, eds), pp. 428-430.

Phillips, J.D. 1995. *Landscape Change Since 1700 in the Croatan National Forest, North Carolina*. Report to U.S. Forest Service, Asheville, N.C., 81 p.

Phillips, J.D. 1995. Book review of *Modelling the Human Impact on Nature*, in *Progress in Physical Geography* 19: 300-301.

Gomez, B., Phillips, J.D., Magilligan, F.J., James, L.A. 1995. *Overbank Sedimentation During the Upper Mississippi River Flood*. Report to National Science Foundation.

Trofimov, A.M., Phillips, J.D., Renwick, W.H. 1994. Results of Binghamton Symposium. *Geomorphology (Moscow)* 94: 100-103. In Russian.

Phillips, J.D., Gomez, B. 1994. In defense of logical sloth (comment). *Annals of the Association of American Geographers* 84: 697-701.

Slezak, W., Phillips, J.D., Allen, J.R., Psuty, N.P. 1984. Sediment recycling for beach nourishment, Sandy Hook, N.J. *Dredging '84*. New York: American Society of Civil Engineers.

Psuty, N.P., Phillips, J.D. and five others. 1984. Dynamic measures applied to beach management and restoration, Sandy Hook, New Jersey, U.S.A. *Proceedings, Commission on Coastal Environments*, 25th International Geographical Union Congress, Paris.

Phillips, J.D. 1983. Fractal dimensions, self-similarity, and process-response geomorphology. *Proceedings*, Middle States Division, Association of American Geographers, West Point, N.Y.

Other professional publications (1982-present):

Six non-refereed articles, comments, encyclopedia entries in *American Geological Institute Dictionary of Geological Terms*; *McGraw-Hill Yearbook of Science and Technology*; *Proceedings, Society of Wetland Scientists*; *Metro Arizona*; and *Professional Geographer*.

Eight book reviews, in *Geoderma*; *Geomorphology*; *Progress in Physical Geography*; *The Professional Geographer*, *Water Resources Bulletin* and *Journal of Geography*.

Three geographic and scientific popularizations, in *Focus* (2) and *Public Administrator*.

28 project or technical reports, for the USDA Forest Service, Texas Water Development Board; Pamlico-Tar River Foundation, Inc.; American Association for the Advancement of Science; Peat Mining Task Force, North Carolina Coastal Federation; National Park Service; and New Jersey Department of Environmental Protection.

## **Presentations at Professional Meetings**

2008

Geological Society of America/Soil Science Society of America Joint Meeting, Houston  
(invited speaker, plus poster presentation)  
Fluvial Deposits & Environmental History, Binghamton Geomorphology Symposium,  
Austin, TX (poster)

2007

Geomorphology and Complexity, Binghamton Geomorphology Symposium, Durham,  
NC (invited speaker)  
Southwestern Division, Association of American Geographers, Bryan, TX.

2006

World Congress of Soil Science, Symposium on Pedodiversity, Philadelphia  
World Congress of Soil Science, Symposium on Soil Geomorphology, Philadelphia  
Workshop on Modelling of Pedogenesis, Orleans, France (invited keynote speaker)  
USA Prediction in Ungaged Basins Workshop, Corvallis, OR (invited keynote speaker)

2005

Conference on Nonlinear Dynamics and Thresholds in Environmental Response to  
Climate Change, Perth, Australia (invited keynote speaker).

2004

Joint International Geomorphology Conference (British Geomorphology Research  
Group and International Geographical Union), Glasgow, Scotland (invited keynote  
speaker)  
Binghamton Geomorphology Symposium on Weathering and Landscape Evolution,  
Lexington, KY

2003

Southeastern Division, Association of American Geographers, Charlotte, NC  
Coastal Sediments 2003, Clearwater Beach, FL

2002

Southeastern Division, Association of American Geographers, Richmond, VA  
North Central/Southeastern Sections, Geological Society of America, Lexington, KY

2001

Southeastern Division, Association of American Geographers, Lexington, KY

2000

Association of American Geographers, Annual Meeting, Pittsburgh  
Southwestern Division, Association of American Geographers, College Station, TX

1999

Southwestern Division, Association of American Geographers, Baton Rouge

1998

Workshop on Spatial Analysis in Geographical Information Systems, National Center for Geographic Information and Analysis, Santa Barbara, CA  
Association of American Geographers, Annual Meeting, Boston  
Southwestern Division, Association of American Geographers, Albuquerque  
Texas Geomorphology Symposium, Junction

1997

American Geophysical Union, Fall meeting, San Francisco  
Association of American Geographers, Annual Meeting, Fort Worth

1996

Southeastern Division, Association of American Geographers, Athens, GA  
Binghamton Geomorphology Symposium, Urbana, IL (invited)

1995

International Union of Geodesy & Geophysics/International Association of Hydrological Sciences, International Symposium, Boulder, CO  
Association of American Geographers, Annual Meeting, Chicago  
Binghamton Geomorphology Symposium, Charlottesville, VA (invited)  
Southeastern Division, Association of American Geographers, Knoxville, TN

1994

Plenary Lecture, Symposium on Wetland Buffers, Boundaries, and Gradients, Niagra Falls, Ontario  
Binghamton Geomorphology Symposium, Binghamton, NY (poster)  
Southeastern Division, Association of American Geographers, Virginia Beach

1993

Association of American Geographers, Annual Meeting, Atlanta  
International Association of Geomorphologists, Third International Geomorphology Conference, Hamilton, Ontario  
Symposium on Coastal and Ocean Management, American Society of Civil Engineers, New Orleans

1992

International Geographical Congress, Washington  
Binghamton Geomorphology Symposium, Buffalo (poster)  
Society of Wetland Scientists, New Orleans

1991

NATO Symposium on Overland Flow, Keele, England  
Southeastern Division, Association of American Geographers, Asheville, NC

1990

Applied Geography Conference, Binghamton, NY  
Association of American Geographers, Annual Meeting, Toronto

Binghamton Geomorphology Symposium, Binghamton, NY (poster)

1989

Applied Geography Conference, Charlotte, NC  
Association of American Geographers, Annual Meeting, Baltimore  
Symposium on Coastal and Ocean Management, American Society of Civil Engineers,  
Charleston, SC

1988

American Water Resources Association, Symposium on Coastal Water Resources,  
Wilmington, NC  
Association of American Geographers, Annual Meeting, Phoenix

1987

Association of American Geographers, Annual Meeting, Portland, OR  
Soil Conservation Society of America, Billings, MT

1986

Association of American Geographers, Annual Meeting, Minneapolis  
Southeastern Division, Association of American Geographers, Chapel Hill, NC

1985

Symposium on Coastal and Ocean Management, American Society of Civil Engineers,  
Baltimore  
Symposium on Estuarine Circulation, Williamsburg, VA

1984

Association of American Geographers, Annual Meeting, Washington  
New Jersey Academy of Sciences, Montclair  
The Coastal Society, Atlantic City, NJ

1983

Middle States Division, Association of American Geographers, West Point, NY  
New Jersey Academy of Sciences, Newark  
North Carolina Academy of Sciences, Charlotte

1982

North Carolina Academy of Sciences, Wilmington

1981

Southeastern Division, Association of American Geographers, Atlanta

### **Invited Lectures, Seminars, and Colloquia**

2008

Flash Flood Seminar, National Weather Service Regional Forecast Office, Jackson, KY  
Department of Geography, University of South Carolina, Columbia  
Stream Information Exchange: Fine Sediment & the Chesapeake Bay Watershed,

Maryland Department of Natural Resources, Baltimore

2007

Department of Geography & Anthropology, Louisiana State University  
Department of Geography, East Carolina University

2006

U.S.D.A. Forest Service and Arkansas Association of Professional Soil Classifiers,  
Conway, AR  
Department of Geological Sciences, University of Tennessee, Knoxville  
Texas Instream Flow Program, Austin

2005

Center for Landscape, Environment, and Mineral Exploration; Geoscience Australia;  
Canberra  
Department of Physical Geography, McQuarie University, Sydney, Australia  
Department of Natural Resources, Queensland University of Technology, Brisbane,  
Australia  
Department of Geological Sciences, University of Kentucky

2004

Department of Geography, University of Cincinnati  
Texas Water Development Board and Texas General Land Office, Austin

2003

Distinguished Lecture Series, University of Kentucky

2002

Presidential Plenary Lecture, Southeastern Division, Association of American  
Geographers  
Department of Geography, Queen's University-Belfast, Northern Ireland, U.K.

2001

Department of Geography and Regional Development, University of Arizona  
Department of Geography, Ohio State University  
Department of Geological Sciences, University of Kentucky  
Department of Geography, Rutgers University  
Annual McConnell Lecture, Miami University  
Department of Geography, Miami University

2000

Department of Agronomy, University of Kentucky  
Department of Geography, University of Minnesota

1985-1999

Workshop on Chaotic Dynamics and Fractals in Geosciences, Madrid, Spain, 1999.

Department of Geography, University of Kentucky, 1999.  
James and Marilyn Lovell Center for Environmental Geography and Hazards Research, Southwest Texas State University, 1999.  
Geography Awareness Week Lecture, Stephen F. Austin State University, 1998.  
Department of Geology, University of South Carolina, 1998.  
Department of Geography, Texas A&M University: 2000, 1998, 1997.  
Department of Soil and Crop Science, Texas A&M University, 1998.  
Department of Geology & Geophysics, Texas A&M University, 1997.  
Department of Geography & Planning, Southwest Texas State University, 1997.  
Department of Geography, University of Texas, 1997.  
Hammond Lecture, Department of Geography, University of Tennessee, 1996.  
Department of Geography, University of Southern California, 1995.  
Soil Science Society of America, Annual Meeting, Invited speaker at Workshop on Chaos in Soil Science, 1994.  
Geography Awareness Week Annual Lecture, East Carolina University, 1993.  
Department of Geology, East Carolina University, 1993.  
Department of Geology, Duke University, 1992.  
Department of Earth Science, University of North Carolina at Wilmington, 1992.  
Department of Geography, University of Maryland, 1991.  
Department of Geography, University of North Carolina at Chapel Hill, 1991.  
Distinguished Speakers Series, Appalachian State University, 1990.  
Department of Biology, East Carolina University, 1985.

**Research Grants and Contracts** (Dates, title, funding entity, amount, role).

2008. Texas/Louisiana Flow Split in the Sabine River/Cutoff Bayou Area. TCB, Inc., Houston Texas. Amount withheld at client's request. Consultant.

2007-2008. Geomorphic Processes, Controls, and Transition Zones in the Middle and Lower Trinity River. Texas Instream Flow Program, \$45,000. P.I.

2007-2008. Geomorphic Units of the Lower Sabine River. Texas Instream Flow Program, \$35,000. P.I.

2006-2007. Field-Based Analysis in support of a Geomorphic Assessment of the Brazos and Navasota River Subbasin. Texas Instream Flow Program, \$30,000. P.I.

2006-2007. Geomorphic Equilibrium in Southeast Texas Rivers. Texas Instream Flow Program, \$30,000. P.I.

2006-2007. Geomorphic Processes, Controls, and Transition Zones in the Lower Sabine River. Texas Water Development Board/U.S. Army Corps of Engineers, \$65,000. P.I.

2005-2006. Geomorphic Context, Constraints, and Change in the Lower Brazos and Navasota Rivers, Texas. Texas Instream Flow Program, \$28,000. P.I.

2004-2006. Fluviokarst Landscape Whole-System Sensitivity to Land Use Changes, Kentucky River, U.S.A. U.S. Environmental Protection Agency, Science to Achieve

Results Program, \$37,172. Co-investigator; funding is fellowship for PhD student Linda Martin.

2004-2006. Effects of trees on bedrock weathering, soil thickness, and rock fragment occurrence in Ouachita Mountain Soils. U.S. Forest Service, \$20,817 plus in-kind support. P.I.

2004-2005. Relative Importance of Fluvial and Non-Fluvial Sediment Sources in Galveston Bay. Texas Water Development Board. \$61,000. Co-P.I.

2003-2005. Sediment production and alluvial buffering in a steep-land river basin Waipoa River, New Zealand. National Science Foundation, \$250,000, Co-P.I.

2001-2004. Sediment retention in the lower Trinity River. Texas Water Development Board, \$65,000. P.I.

2002-2003. Coevolution of forests and soils in the Ouachita Mountains. U.S. Forest Service, \$16,600 plus USFS in-kind support. P.I.

2001-2002. Pedologic effects of forest changes in the Ouachita mountains region. U.S. Forest Service, \$20,000 plus USFS in-kind support. P.I.

1999-2000. Radionuclide signatures of fluvial sediment in Caney Creek, Texas. U.S. Forest Service \$7,000 and Texas A&M College of Geosciences Research Enhancement Fund match, \$7,000. PI.

1999-2001. Sediment retention in bottomland hardwoods of the Angelina River, Texas. Texas Water Development Board, \$50,000. PI 1999/2000; co-PI 2000/2001.

1998-2000. Mission Geography. NASA. Total project funding \$950,000; Phillips portion \$10,000. Earth System Science Consultant.

1995-1998. Quantifying soil erosion and sediment delivery on North Carolina Coastal Plain croplands. U.S. Department of Agriculture, \$149,000. Co-PI.

1994-1995. Pre-settlement landscapes of the Croatan National Forest. U.S. Forest Service, \$10,000. PI.

1993-1994. Overbank sedimentation during the upper Mississippi River flood, 1993. National Science Foundation, \$22,000. Co-PI.

1990. Basinwide water quality and natural resource management plan for the Pamlico-Tar River basin. Pamlico-Tar River Foundation, Inc., \$6,500. Project Director.

1988-1989. Marina siting policy for the Pamlico River and western Pamlico Sound. Pamlico-Tar River Foundation, Inc., \$5,515. Project Director.

1987. Nonpoint source pollution spatial risk assessment. Environmental Science and Engineering Fellowship, American Association for the Advancement of Science and U.S. Environmental Protection Agency, \$20,000. PI/Fellow.

1984. Geomorphic evaluation of beach nourishment, South Beach, Sandy Hook, N.J. National Park Service, \$5000. Co-PI.

1983-1984. Impacts of beach nourishment, South Beach, Sandy Hook, N.J. National Park Service, \$12,000. Co-PI.

Internal research grants: University of Kentucky, 2007; Texas A&M University, 1999; East Carolina University, 1992; 1990; 1989; Arizona State University, 1987.

### **Other Professional Grants and Contracts**

1993. Physical geography data acquisition system. National Science Foundation, \$13,000. Co-PI.

1985-1987. Water quality and coastal resource management in the Pamlico-Albemarle region, North Carolina. Mary Flagler Cary Charitable Trust, \$22,000. Project Director.

1985-1987. Water quality and pollution control in the Pamlico-Tar River watershed, North Carolina. Z. Smith Reynolds Foundation, \$50,000. Project Director.

1986-1987. Environmental education and outdoor recreation in Medoc Mountain State Park. North Carolina Division of Parks and Recreation, \$1,000. Project Director.

1985. Pamlico-Tar River Maritime Heritage Festival. National Endowment for the Humanities, \$3,140. Project Director.

### **Professional Memberships & Service**

Member, Current: American Geophysical Union, International Association of Geomorphologists, International Association of Hydrological Sciences, International Union of Soil Scientists

Member, Past: Association of American Geographers, American Water Resources Association, Soil and Water Conservation Society, Society of Wetland Scientists.

International Union of Soil Sciences, Symposium Co-Organizer, 2006 World Congress of Soil Science.

Manuscript reviewer for 38 separate scholarly journals of geography, geology, environmental science, hydrology, and soil science.

Proposal reviewer for four U.S. federal agencies, six foreign agencies, six state agencies, and five private organizations or foundations.

External tenure and promotion reviewer for 22 U.S. universities and two British universities. Program reviews for three U.S. and one Canadian university.

Editorial board memberships:

Current: *Geomorphology, Geographical Analysis, Transactions, Institute of British Geographers*

Previous: *Annals of the Association of American Geographers, Southeastern Geographer, Focus*

### **Awards** (post-PhD)

2006. *University Research Professor*. University of Kentucky.

1999. *Distinguished Achievement Award for Research*. College of Geosciences, Texas A&M University.

1997. *G.K. Gilbert Award for Excellence in Geomorphic Research*. Geomorphology Specialty Group, Association of American Geographers.

1995. *Research Honors Award*. Southeastern Division, Association of American Geographers.

1990. *Great Blue Heron Award* for environmental advocacy, Pamlico-Tar River Foundation, Inc.

1990. *Research Achievement Award for New Scholars*, Conference of Southern Graduate Schools.

1989. *College Research Award*, College of Arts and Sciences, East Carolina University.

1987. *Environmental Science and Engineering Fellowship*, American Association for the Advancement of Science.

### **Personal**

Born: 4 November 1957, Roxboro, North Carolina.

Family: Married to Lynn Roche Phillips since 18 June 1983. Son: Nathan Scott Phillips, born 18 June 1988. Daughter: Bay Rochelle Phillips, born 18 February, 1996.

UPDATED: 15 January 2009

