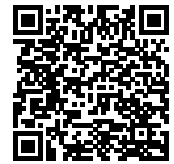


Soil Science

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A. David McGuire, Leif G. Anderson, Torben R. Christensen, Scott Dallimore, Laodong Guo, Daniel J. Hayes, Martin Heimann, Thomas D. Lorenson, Robie W. Macdonald and Nigel Roulet. 2009. 'Sensitivity of the Carbon Cycle in the Arctic to Climate Change'. *Ecological Monographs* 79 (4): 523–55. <http://www.jstor.org/stable/40385226>.

Aber, John D. 1992. 'Nitrogen Cycling and Nitrogen Saturation in Temperate Forest Ecosystems'. *Trends in Ecology & Evolution* 7 (7): 220–24. [https://doi.org/10.1016/0169-5347\(92\)90048-G](https://doi.org/10.1016/0169-5347(92)90048-G).

Ågren, Göran I., and Folke Andersson. 2012. *Terrestrial Ecosystem Ecology: Principles and Applications*. Cambridge: Cambridge University Press.

Andrews, Jeffrey A., and William H. Schlesinger. 2001. 'Soil CO₂ Dynamics, Acidification, and Chemical Weathering in a Temperate Forest with Experimental CO₂ Enrichment'. *Global Biogeochemical Cycles* 15 (1): 149–62. <https://doi.org/10.1029/2000GB001278>.

Ashman, M. R., G. Puri, and MyiLibrary. 2002. *Essential Soil Science: A Clear and Concise Introduction to Soil Science*. Electronic resource. Oxford: Blackwell Science. <http://www.mylibrary.com?id=211757>.

Baath, Erland, and Hakan Wallander. 2003. 'Soil and Rhizosphere Microorganisms Have the Same Q₁₀ for Respiration in a Model System'. *Global Change Biology* 9 (12): 1788–91. <https://doi.org/10.1046/j.1365-2486.2003.00692.x>.

Bardgett, Richard D. 2005. *The Biology of Soil: A Community and Ecosystem Approach*. New York: Oxford University Press.

Bohn, Hinrich L., George A. O'Connor, and Brian Lester McNeal. 1985. *Soil Chemistry*. 2nd ed. New York: John Wiley & Sons.

Bormann, Bernard T., Deane Wang, Michael C. Snyder, F. Herbert Bormann, Gaboury Benoit, and Richard April. 1998. 'Rapid, Plant-Induced Weathering in an Aggrading Experimental Ecosystem'. *Biogeochemistry* 43 (2): 129–55. <https://doi.org/10.1023/A:1006065620344>.

Brady, Nyle C., and Ray R. Weil. 1998. *The Nature and Properties of Soils*. 12th ed. Upper Saddle River, N.J.: Prentice Hall.

Brantley, S. L. 2008. 'GEOLOGY: Understanding Soil Time'. *Science* 321 (5895): 1454–55. <https://doi.org/10.1126/science.1161132>.

CONANT, RICHARD T., RHAË A. DRIJBER, MICHELLE L. HADDIX, WILLIAM J. PARTON, ELDOR A. PAUL, ALAIN F. PLANTE, JOHAN SIX, and J. MEGAN STEINWEG. 2008. 'Sensitivity of Organic Matter Decomposition to Warming Varies with Its Quality'. *Global Change Biology* 14 (4): 868–77. <https://doi.org/10.1111/j.1365-2486.2008.01541.x>.

Dawson, Julian J.C., and Pete Smith. 2007. 'Carbon Losses from Soil and Its Consequences for Land-Use Management'. *Science of The Total Environment* 382 (2–3): 165–90. <https://doi.org/10.1016/j.scitotenv.2007.03.023>.

ebRARY, Inc. 1993. *Soil and Water Quality: An Agenda for Agriculture*. Electronic resource. Washington, D.C.: National Academy Press. <http://site.ebrary.com/lib/unnc/Doc?id=10054995>.

Emmett, Bridget A., Claus Beier, Marc Estiarte, Albert Tietema, Hanne. L. Kristensen, Dylan Williams, Josep Peñuelas, Inger Schmidt, and Alwyn Sowerby. 2004. 'The Response of Soil Processes to Climate Change: Results from Manipulation Studies of Shrublands Across an Environmental Gradient'. *Ecosystems* 7 (6). <https://doi.org/10.1007/s10021-004-0220-x>.

Evans, Chris D., Christine L. Goodale, Simon J. M. Caporn, Nancy B. Dise, Bridget A. Emmett, Ivan J. Fernandez, Chris D. Field, et al. 2008. 'Does Elevated Nitrogen Deposition or Ecosystem Recovery from Acidification Drive Increased Dissolved Organic Carbon Loss from Upland Soil? A Review of Evidence from Field Nitrogen Addition Experiments'. *Biogeochemistry* 91 (1): 13–35. <https://doi.org/10.1007/s10533-008-9256-x>.

Farley, Kathleen A., Gervasio Piñeiro, Sheila M. Palmer, Esteban G. Jobbágy, and Robert B. Jackson. 2008. 'Stream Acidification and Base Cation Losses with Grassland Afforestation'. *Water Resources Research* 44 (7): n/a-n/a. <https://doi.org/10.1029/2007WR006659>.

Gardiner, Duane T., and Raymond W. Miller. 2004. *Soils in Our Environment*. 10th ed. Upper Saddle River, N.J.: Pearson/Prentice Hall.

GERSHENSON, ALEXANDER, NICHOLAS E. BADER, and WEIXIN CHENG. 2009. 'Effects of Substrate Availability on the Temperature Sensitivity of Soil Organic Matter Decomposition'. *Global Change Biology* 15 (1): 176–83. <https://doi.org/10.1111/j.1365-2486.2008.01827.x>.

Giardina, Christian P. 2000. 'Evidence That Decomposition Rates of Organic Carbon in Mineral Soil Do Not Vary with Temperature.' *Nature* 404 (6780). <http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=3069988&site=ehost-live>.

Guo, L. B., and R. M. Gifford. 2002. 'Soil Carbon Stocks and Land Use Change: A Meta Analysis'. *Global Change Biology* 8 (4): 345–60. <https://doi.org/10.1046/j.1354-1013.2002.00486.x>.

HANSEN, KARIN, LARS ROSENQVIST, LARS VESTERDAL, and PER GUNDERSEN. 2007. 'Nitrate Leaching from Three Afforestation Chronosequences on Former Arable Land in Denmark'. *Global Change Biology* 13 (6): 1250–64. <https://doi.org/10.1111/j.1365-2486.2007.01355.x>.

Haygarth, P. M., S. C. Jarvis, and ebrary, Inc. 2002. *Agriculture, Hydrology, and Water Quality*. Electronic resource. Wallingford: CABI.

<http://site.ebrary.com/lib/unnc/Doc?id=10060479>.

Haygarth, Philip M., and Karl Ritz. 2009. 'The Future of Soils and Land Use in the UK: Soil Systems for the Provision of Land-Based Ecosystem Services'. *Land Use Policy* 26 (December): S187–97. <https://doi.org/10.1016/j.landusepol.2009.09.016>.

Hodge, Ian, and Mark Reader. 2010. 'The Introduction of Entry Level Stewardship in England: Extension or Dilution in Agri-Environment Policy?' *Land Use Policy* 27 (2): 270–82. <https://doi.org/10.1016/j.landusepol.2009.03.005>.

Jenny, Hans. 1941. *Factors of Soil Formation: A System of Quantitative Pedology*. Vol. McGraw-Hill publications in the agricultural sciences. New York: McGraw-Hill.

Jobbágy, Esteban G., and Robert B. Jackson. 2003. 'Patterns and Mechanisms of Soil Acidification in the Conversion of Grasslands to Forests'. *Biogeochemistry* 64 (2): 205–29. <https://doi.org/10.1023/A:1024985629259>.

Kay, Paul, Anthony C. Edwards, and Miles Foulger. 2009. 'A Review of the Efficacy of Contemporary Agricultural Stewardship Measures for Ameliorating Water Pollution Problems of Key Concern to the UK Water Industry'. *Agricultural Systems* 99 (2–3): 67–75. <https://doi.org/10.1016/j.agsy.2008.10.006>.

Kirchner, James W., and Espen. Lydersen. 1995. 'Base Cation Depletion and Potential Long-Term Acidification of Norwegian Catchments'. *Environmental Science & Technology* 29 (8): 1953–60. <https://doi.org/10.1021/es00008a012>.

KIRK, GUY J.D., PAT H. BELLAMY, and R. MURRAY LARK. 2009a. 'Changes in Soil pH across England and Wales in Response to Decreased Acid Deposition'. *Global Change Biology*, November, no-no. <https://doi.org/10.1111/j.1365-2486.2009.02135.x>.

———. 2009b. 'Changes in Soil pH across England and Wales in Response to Decreased Acid Deposition'. *Global Change Biology*, November, no-no. <https://doi.org/10.1111/j.1365-2486.2009.02135.x>.

KIRSCHBAUM, M. 2006. 'The Temperature Dependence of Organic-Matter Decomposition—Still a Topic of Debate'. *Soil Biology and Biochemistry* 38 (9): 2510–18. <https://doi.org/10.1016/j.soilbio.2006.01.030>.

Kirschbaum, Miko U.F. 2000. 'Will Changes in Soil Organic Carbon Act as a Positive or Negative Feedback on Global Warming?' *Biogeochemistry* 48 (1): 21–51. <https://doi.org/10.1023/A:1006238902976>.

L., Rustad, Campbell J., Marion G., Norby R., Mitchell M., Hartley A., Cornelissen J., Gurevitch J., and Not Available Not Available. 2001. 'A Meta-Analysis of the Response of Soil Respiration, Net Nitrogen Mineralization, and Aboveground Plant Growth to Experimental Ecosystem Warming'. *Oecologia* 126 (4): 543–62. <https://doi.org/10.1007/s004420000544>.

LAGANIĆ, RE, JÄRÅME, DENIS A. ANGERS, and DAVID PARÅ. 2010. 'Carbon Accumulation in Agricultural Soils after Afforestation: A Meta-Analysis'. *Global Change Biology* 16 (1): 439–53. <https://doi.org/10.1111/j.1365-2486.2009.01930.x>.

- Lovett, Gary M., and Christine L. Goodale. 2011. 'A New Conceptual Model of Nitrogen Saturation Based on Experimental Nitrogen Addition to an Oak Forest'. *Ecosystems* 14 (4): 615–31. <https://doi.org/10.1007/s10021-011-9432-z>.
- Lovett, Gary M., Kathleen C. Weathers, Mary A. Arthur, and Jack C. Schultz. 2004. 'Nitrogen Cycling in a Northern Hardwood Forest: Do Species Matter?' *Biogeochemistry* 67 (3): 289–308. <https://doi.org/10.1023/B:BIOG.0000015786.65466.f5>.
- MacDonald, J. A., N. B. Dise, E. Matzner, M. Armbruster, P. Gundersen, and M. Forsius. 2002. 'Nitrogen Input Together with Ecosystem Nitrogen Enrichment Predict Nitrate Leaching from European Forests'. *Global Change Biology* 8 (10): 1028–33. <https://doi.org/10.1046/j.1365-2486.2002.00532.x>.
- Magill, Alison H, John D Aber, William S Currie, Knute J Nadelhoffer, Mary E Martin, William H McDowell, Jerry M Melillo, and Paul Steudler. 2004. 'Ecosystem Response to 15 Years of Chronic Nitrogen Additions at the Harvard Forest LTER, Massachusetts, USA'. *Forest Ecology and Management* 196 (1): 7–28. <https://doi.org/10.1016/j.foreco.2004.03.033>.
- McLauchlan, Kendra K. 2006. 'Effects of Soil Texture on Soil Carbon and Nitrogen Dynamics after Cessation of Agriculture'. *Geoderma* 136 (1–2): 289–99. <https://doi.org/10.1016/j.geoderma.2006.03.053>.
- MORRIS, SHERRI J., SVEN BOHM, SHAWEL HAILE-MARIAM, and ELDOR A. PAUL. 2007. 'Evaluation of Carbon Accrual in Afforested Agricultural Soils'. *Global Change Biology* 13 (6): 1145–56. <https://doi.org/10.1111/j.1365-2486.2007.01359.x>.
- Mörth, Carl-Magnus, Peter Torssander, O. Janne Kjønaas, Arne O Stuanes, Filip Moldan, and Reiner Giesler. 2005. 'Mineralization of Organic Sulfur Delays Recovery from Anthropogenic Acidification'. *Environmental Science & Technology* 39 (14): 5234–40. <https://doi.org/10.1021/es048169q>.
- Nathanail, C. Paul, and Paul Bardos. 2004. *Reclamation of Contaminated Land*. Chichester, West Sussex, England: Wiley.
- National Research Council (U.S.) and ebrary, Inc. 1993. *Sustainable Agriculture and the Environment in the Humid Tropics*. Electronic resource. Washington, D.C.: National Academy Press. <http://site.ebrary.com/lib/unnc/Doc?id=10072116>.
- OH, NEUNG-HWAN, MICHAEL HOFMOCKEL, MICHAEL L. LAVINE, and DANIEL D. RICHTER. 2007. 'Did Elevated Atmospheric CO₂ Alter Soil Mineral Weathering?: An Analysis of 5-Year Soil Water Chemistry Data at Duke FACE Study'. *Global Change Biology* 13 (12): 2626–41. <https://doi.org/10.1111/j.1365-2486.2007.01452.x>.
- Ostle, N.J., P.E. Levy, C.D. Evans, and P. Smith. 2009. 'UK Land Use and Soil Carbon Sequestration'. *Land Use Policy* 26 (December): S274–83. <https://doi.org/10.1016/j.landusepol.2009.08.006>.
- Palmer, Sheila M., Charles T. Driscoll, and Chris E. Johnson. 2004. 'Long-Term Trends in Soil Solution and Stream Water Chemistry at the Hubbard Brook Experimental Forest: Relationship with Landscape Position'. *Biogeochemistry* 68 (1): 51–70. <https://doi.org/10.1023/B:BIOG.0000025741.88474.0d>.

Post, W. M., and K. C. Kwon. 2000. 'Soil Carbon Sequestration and Land-Use Change: Processes and Potential'. *Global Change Biology* 6 (3): 317-27.
<https://doi.org/10.1046/j.1365-2486.2000.00308.x>.

Robert L. Crocker and Jack Major. 1955. 'Soil Development in Relation to Vegetation and Surface Age at Glacier Bay, Alaska'. *Journal of Ecology* 43 (2): 427-48.
<http://www.jstor.org/stable/10.2307/2257005?origin=crossref&>.

Robinson, Guy M. 2006. 'Ontario's Environmental Farm Plan: Evaluation and Research Agenda'. *Geoforum* 37 (5): 859-73. <https://doi.org/10.1016/j.geoforum.2005.05.002>.

Schaetzl, Randall J., and Sharon Anderson. 2005. *Soils: Genesis and Geomorphology*. Cambridge: Cambridge University Press.

Schjørring, P., S. Elmholt, B. T. Christensen, and ebrary, Inc. 2004. *Managing Soil Quality: Challenges in Modern Agriculture*. Electronic resource. Wallingford, Oxon: CABI Pub.
<http://site.ebrary.com/lib/unnc/Doc?id=10173496>.

SMITH, PETE, DAVID POWLSON, MARGARET GLENDINING, and JO SMITH. 1997. 'Potential for Carbon Sequestration in European Soils: Preliminary Estimates for Five Scenarios Using Results from Long-Term Experiments'. *Global Change Biology* 3 (1): 67-79.
<https://doi.org/10.1046/j.1365-2486.1997.00055.x>.

Smith, Pete, David S. Powlson, Jo U. Smith, Pete Falloon, and Kevin Coleman. 2000. 'Meeting Europe's Climate Change Commitments: Quantitative Estimates of the Potential for Carbon Mitigation by Agriculture'. *Global Change Biology* 6 (5): 525-39.
<https://doi.org/10.1046/j.1365-2486.2000.00331.x>.

Trumbore, S. E., and C. I. Czimczik. 2008. 'GEOLOGY: An Uncertain Future for Soil Carbon'. *Science* 321 (5895): 1455-56. <https://doi.org/10.1126/science.1160232>.

Vesterdal, Lars, Eva Ritter, and Per Gundersen. 2002. 'Change in Soil Organic Carbon Following Afforestation of Former Arable Land'. *Forest Ecology and Management* 169 (1-2): 137-47. [https://doi.org/10.1016/S0378-1127\(02\)00304-3](https://doi.org/10.1016/S0378-1127(02)00304-3).

Wall, Diana H. 2012. *Soil Ecology and Ecosystem Services*. Oxford: Oxford University Press.

Wesselink, Lambert G., Karl-Joseph. Meiwes, Egbert. Matzner, and Alfred. Stein. 1995. 'Long-Term Changes in Water and Soil Chemistry in Spruce and Beech Forests, Solling, Germany'. *Environmental Science & Technology* 29 (1): 51-58.
<https://doi.org/10.1021/es00001a006>.

White, R. E. and MyiLibrary. 2006. *Principles and Practice of Soil Science: The Soil as a Natural Resource*. Electronic resource. 4th ed. Malden, Massachusetts: Blackwell.
<http://www.myilibrary.com?id=211680>.

Wright, Richard F., Thorjörn Larssen, Lluís Camarero, Bernard J. Cosby, Robert C. Ferrier, Rachel Helliwell, Martin Forsius, et al. 2005. 'Recovery of Acidified European Surface Waters'. *Environmental Science & Technology* 39 (3): 64A-72A.
<https://doi.org/10.1021/es0531778>.

Yong, R. N., Masashi Nakano, and Roland Pusch. 2012. Environmental Soil Properties and Behaviour. Boca Raton, FL: CRC Press.