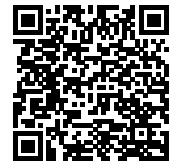


Soil Science

[View Online](#)

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), pp. 523–555. Available at: <http://www.jstor.org/stable/40385226>.

Aber, J.D. (1992) 'Nitrogen cycling and nitrogen saturation in temperate forest ecosystems', *Trends in Ecology & Evolution*, 7(7), pp. 220–224. Available at: [https://doi.org/10.1016/0169-5347\(92\)90048-G](https://doi.org/10.1016/0169-5347(92)90048-G).

Ågren, G.I. and Andersson, F. (2012) *Terrestrial ecosystem ecology: principles and applications*. Cambridge: Cambridge University Press.

Andrews, J.A. and Schlesinger, W.H. (2001) 'Soil CO₂ dynamics, acidification, and chemical weathering in a temperate forest with experimental CO₂ enrichment', *Global Biogeochemical Cycles*, 15(1), pp. 149–162. Available at: <https://doi.org/10.1029/2000GB001278>.

Ashman, M.R., Puri, G., and MyiLibrary (2002) *Essential soil science: a clear and concise introduction to soil science* [electronic resource]. Oxford: Blackwell Science. Available at: <http://www.myilibary.com?id=211757>.

Baath, E. and Wallander, H. (2003) 'Soil and rhizosphere microorganisms have the same Q₁₀ for respiration in a model system', *Global Change Biology*, 9(12), pp. 1788–1791. Available at: <https://doi.org/10.1046/j.1365-2486.2003.00692.x>.

Bardgett, R.D. (2005) *The biology of soil: a community and ecosystem approach*. New York: Oxford University Press.

Bohn, H.L., O'Connor, G.A. and McNeal, B.L. (1985) *Soil chemistry*. 2nd ed. New York: John Wiley & Sons.

Bormann, B.T. et al. (1998) 'Rapid, plant-induced weathering in an aggrading experimental ecosystem', *Biogeochemistry*, 43(2), pp. 129–155. Available at: <https://doi.org/10.1023/A:1006065620344>.

Brady, N.C. and Weil, R.R. (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), pp. 1454–1455. Available at: <https://doi.org/10.1126/science.1161132>.

- CONANT, R.T. et al. (2008) 'Sensitivity of organic matter decomposition to warming varies with its quality', *Global Change Biology*, 14(4), pp. 868–877. Available at: <https://doi.org/10.1111/j.1365-2486.2008.01541.x>.
- Dawson, J.J.C. and Smith, P. (2007) 'Carbon losses from soil and its consequences for land-use management', *Science of The Total Environment*, 382(2–3), pp. 165–190. Available at: <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. Available at: <http://site.ebrary.com/lib/unnc/Doc?id=10054995>.
- Emmett, B.A. et al. (2004) 'The Response of Soil Processes to Climate Change: Results from Manipulation Studies of Shrublands Across an Environmental Gradient', *Ecosystems*, 7(6). Available at: <https://doi.org/10.1007/s10021-004-0220-x>.
- Evans, C.D. 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), pp. 13–35. Available at: <https://doi.org/10.1007/s10533-008-9256-x>.
- Farley, K.A. et al. (2008) 'Stream acidification and base cation losses with grassland afforestation', *Water Resources Research*, 44(7), p. n/a-n/a. Available at: <https://doi.org/10.1029/2007WR006659>.
- Gardiner, D.T. and Miller, R.W. (2004) *Soils in our environment*. 10th ed. Upper Saddle River, N.J.: Pearson/Prentice Hall.
- GERSHENSON, A., BADER, N.E. and CHENG, W. (2009) 'Effects of substrate availability on the temperature sensitivity of soil organic matter decomposition', *Global Change Biology*, 15(1), pp. 176–183. Available at: <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). Available at: <http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=3069988&site=ehost-live>.
- Guo, L.B. and Gifford, R.M. (2002) 'Soil carbon stocks and land use change: a meta analysis', *Global Change Biology*, 8(4), pp. 345–360. Available at: <https://doi.org/10.1046/j.1354-1013.2002.00486.x>.
- HANSEN, K. et al. (2007) 'Nitrate leaching from three afforestation chronosequences on former arable land in Denmark', *Global Change Biology*, 13(6), pp. 1250–1264. Available at: <https://doi.org/10.1111/j.1365-2486.2007.01355.x>.
- Haygarth, P.M., Jarvis, S.C., and ebrary, Inc (2002) *Agriculture, hydrology, and water quality* [electronic resource]. Wallingford: CABI. Available at: <http://site.ebrary.com/lib/unnc/Doc?id=10060479>.
- Haygarth, P.M. and Ritz, K. (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, pp. S187–S197. Available at: <https://doi.org/10.1016/j.landusepol.2009.09.016>.

Hodge, I. and Reader, M. (2010) 'The introduction of Entry Level Stewardship in England: Extension or dilution in agri-environment policy?', *Land Use Policy*, 27(2), pp. 270–282. Available at: <https://doi.org/10.1016/j.landusepol.2009.03.005>.

Jenny, H. (1941) *Factors of soil formation: a system of quantitative pedology*. New York: McGraw-Hill.

Jobbágy, E.G. and Jackson, R.B. (2003) 'Patterns and mechanisms of soil acidification in the conversion of grasslands to forests', *Biogeochemistry*, 64(2), pp. 205–229. Available at: <https://doi.org/10.1023/A:1024985629259>.

Kay, P., Edwards, A.C. and Foulger, M. (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), pp. 67–75. Available at: <https://doi.org/10.1016/j.agsy.2008.10.006>.

Kirchner, J.W. and Lydersen, Espen. (1995) 'Base Cation Depletion and Potential Long-Term Acidification of Norwegian Catchments', *Environmental Science & Technology*, 29(8), pp. 1953–1960. Available at: <https://doi.org/10.1021/es00008a012>.

KIRK, G.J.D., BELLAMY, P.H. and LARK, R.M. (2009a) 'Changes in soil pH across England and Wales in response to decreased acid deposition', *Global Change Biology*, p. no-no. Available at: <https://doi.org/10.1111/j.1365-2486.2009.02135.x>.

KIRK, G.J.D., BELLAMY, P.H. and LARK, R.M. (2009b) 'Changes in soil pH across England and Wales in response to decreased acid deposition', *Global Change Biology*, p. no-no. Available at: <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), pp. 2510–2518. Available at: <https://doi.org/10.1016/j.soilbio.2006.01.030>.

Kirschbaum, M.U.F. (2000) 'Will changes in soil organic carbon act as a positive or negative feedback on global warming?', *Biogeochemistry*, 48(1), pp. 21–51. Available at: <https://doi.org/10.1023/A:1006238902976>.

L., R. et al. (2001) 'A meta-analysis of the response of soil respiration, net nitrogen mineralization, and aboveground plant growth to experimental ecosystem warming', *Oecologia*, 126(4), pp. 543–562. Available at: <https://doi.org/10.1007/s004420000544>.

LAGANIÄRE, J., ANGERS, D.A. and PARÉ, D. (2010) 'Carbon accumulation in agricultural soils after afforestation: a meta-analysis', *Global Change Biology*, 16(1), pp. 439–453. Available at: <https://doi.org/10.1111/j.1365-2486.2009.01930.x>.

Lovett, G.M. et al. (2004) 'Nitrogen cycling in a northern hardwood forest: Do species matter?', *Biogeochemistry*, 67(3), pp. 289–308. Available at: <https://doi.org/10.1023/B:BIOG.0000015786.65466.f5>.

Lovett, G.M. and Goodale, C.L. (2011) 'A New Conceptual Model of Nitrogen Saturation Based on Experimental Nitrogen Addition to an Oak Forest', *Ecosystems*, 14(4), pp. 615–631. Available at: <https://doi.org/10.1007/s10021-011-9432-z>.

- MacDonald, J.A. et al. (2002) 'Nitrogen input together with ecosystem nitrogen enrichment predict nitrate leaching from European forests', *Global Change Biology*, 8(10), pp. 1028–1033. Available at: <https://doi.org/10.1046/j.1365-2486.2002.00532.x>.
- Magill, A.H. et al. (2004) 'Ecosystem response to 15 years of chronic nitrogen additions at the Harvard Forest LTER, Massachusetts, USA', *Forest Ecology and Management*, 196(1), pp. 7–28. Available at: <https://doi.org/10.1016/j.foreco.2004.03.033>.
- McLauchlan, K.K. (2006) 'Effects of soil texture on soil carbon and nitrogen dynamics after cessation of agriculture', *Geoderma*, 136(1–2), pp. 289–299. Available at: <https://doi.org/10.1016/j.geoderma.2006.03.053>.
- MORRIS, S.J. et al. (2007) 'Evaluation of carbon accrual in afforested agricultural soils', *Global Change Biology*, 13(6), pp. 1145–1156. Available at: <https://doi.org/10.1111/j.1365-2486.2007.01359.x>.
- Mörth, C.-M. et al. (2005) 'Mineralization of Organic Sulfur Delays Recovery from Anthropogenic Acidification', *Environmental Science & Technology*, 39(14), pp. 5234–5240. Available at: <https://doi.org/10.1021/es048169q>.
- Nathanail, C.P. and Bardos, P. (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. Available at: <http://site.ebrary.com/lib/unnc/Doc?id=10072116>.
- OH, N.-H. et al. (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), pp. 2626–2641. Available at: <https://doi.org/10.1111/j.1365-2486.2007.01452.x>.
- Ostle, N.J. et al. (2009) 'UK land use and soil carbon sequestration', *Land Use Policy*, 26, pp. S274–S283. Available at: <https://doi.org/10.1016/j.landusepol.2009.08.006>.
- Palmer, S.M., Driscoll, C.T. and Johnson, C.E. (2004) 'Long-term trends in soil solution and stream water chemistry at the Hubbard Brook Experimental Forest: relationship with landscape position', *Biogeochemistry*, 68(1), pp. 51–70. Available at: <https://doi.org/10.1023/B:BLOG.0000025741.88474.0d>.
- Post, W.M. and Kwon, K.C. (2000) 'Soil carbon sequestration and land-use change: processes and potential', *Global Change Biology*, 6(3), pp. 317–327. Available at: <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), pp. 427–448. Available at: <http://www.jstor.org/stable/10.2307/2257005?origin=crossref&>.
- Robinson, G.M. (2006) 'Ontario's Environmental Farm Plan: Evaluation and research agenda', *Geoforum*, 37(5), pp. 859–873. Available at: <https://doi.org/10.1016/j.geoforum.2005.05.002>.

Schaetzl, R.J. and Anderson, S. (2005) *Soils: genesis and geomorphology*. Cambridge: Cambridge University Press.

Schjørring, P. et al. (2004) *Managing soil quality: challenges in modern agriculture* [electronic resource]. Wallingford, Oxon: CABI Pub. Available at: <http://site.ebrary.com/lib/unnc/Doc?id=10173496>.

SMITH, P. et al. (1997) 'Potential for carbon sequestration in European soils: preliminary estimates for five scenarios using results from long-term experiments', *Global Change Biology*, 3(1), pp. 67–79. Available at: <https://doi.org/10.1046/j.1365-2486.1997.00055.x>.

Smith, P. et al. (2000) 'Meeting Europe's climate change commitments: quantitative estimates of the potential for carbon mitigation by agriculture', *Global Change Biology*, 6(5), pp. 525–539. Available at: <https://doi.org/10.1046/j.1365-2486.2000.00331.x>.

Trumbore, S.E. and Czimczik, C.I. (2008) 'GEOLOGY: An Uncertain Future for Soil Carbon', *Science*, 321(5895), pp. 1455–1456. Available at: <https://doi.org/10.1126/science.1160232>.

Vesterdal, L., Ritter, E. and Gundersen, P. (2002) 'Change in soil organic carbon following afforestation of former arable land', *Forest Ecology and Management*, 169(1–2), pp. 137–147. Available at: [https://doi.org/10.1016/S0378-1127\(02\)00304-3](https://doi.org/10.1016/S0378-1127(02)00304-3).

Wall, D.H. (2012) *Soil ecology and ecosystem services*. Oxford: Oxford University Press.

Wesselink, L.G. et al. (1995) 'Long-Term Changes in Water and Soil Chemistry in Spruce and Beech Forests, Solling, Germany', *Environmental Science & Technology*, 29(1), pp. 51–58. Available at: <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. Available at: <http://www.myilibrary.com?id=211680>.

Wright, R.F. et al. (2005) 'Recovery of Acidified European Surface Waters', *Environmental Science & Technology*, 39(3), pp. 64A–72A. Available at: <https://doi.org/10.1021/es0531778>.

Yong, R.N., Nakano, M. and Pusch, R. (2012) *Environmental soil properties and behaviour*. Boca Raton, FL: CRC Press.