

Dr Elena Vanguelova additional publications list

Publications and reports for FC and other Government Departments and allied organisations, trade and EU publications

Vanguelova, E.; Chapman, S.J.; Perks, M.; Yamulki, S.; Randle, T.; Ashwood, F.; Morison, J., (2018) [Afforestation and restocking on peaty soils: new evidence assessment](#). Report to CXC (ClimateXChange).

Vanguelova, E.I. (2015). Scottish Forestry Alliance project. Interim report on preliminary data analysis and next steps. *Forest Research report, 21 October 2015*.

Ferretti M, Michel A, Calatayud V, Cools N, Gottardini E, Haeni M, Hansen K, Potočić N, Schaub M, Timmermann V, Trotzer S, **Vanguelova E**, Sanders T (2015). ICP Forests Executive Report 2014. The impact of nitrogen deposition and ozone on the sustainability of European forests. e-ISSN 2198-6541

Brunner, I.; Børja, I.; Dalsgaard, L.; Deckmyn, G.; Ekblad, A.; Godbold, D.L.; Guerra Avalos, I.; Lukac, M.; Kalbitz, K.; Kriiska, K.; Ostonen, I.; Schnepf, A.; Simončič, P.; **Vanguelova, E.,** (2013). Belowground C turnover of European forests: Fine roots, mycorrhizal mycelia, soil organic matter and soil models. A Technical Report for National C reporters, LULUCF experts and ecosystem modellers. COST Action FP0803. Swiss Federal Institute for Forest, Snow and Landscape Research, WSL, Birmensdorf. 67 pp. + Annex 61 pp.

Vanguelova, E., Broadmeadow, S. Anderson, R., Yamulki, S., Randle, T., Nisbet, T. and Morison, J. (2012). A Strategic Assessment of Afforested Peat Resources in Wales. Report for the Forestry Commission, Wales, 141pp.
[http://fcnotes/pdf/Peatland_Wales_Report_2012.pdf/\\$FILE/Peatland_Wales_Report_2012.pdf](http://fcnotes/pdf/Peatland_Wales_Report_2012.pdf/$FILE/Peatland_Wales_Report_2012.pdf)

Morison, J., Matthews, R., Miller, G., Perks, M., Randle, T., **Vanguelova, E.,** White, M., & Yamulki, S. (2012). *Understanding the carbon and greenhouse gas balance of forests in Britain*. Forestry Commission Research Report, Forestry Commission, Edinburgh, 149pp.

Pitman, R., **Vanguelova, E.** and Benham, S. (2011). Continuous Cover Forestry effects on soil properties and ground vegetation at Clocaenog, N. Wales. Forest Research report, 18 pages.

Vanguelova, E., Pitman, R., Benham, S. And Perks, M. (2011). Impact of destumping forest management on soil carbon and nutrients and second rotation Sitka spruce growth at Bala destumping site in Wales. Forest Research Report, 20 pages.

Hall, Jane; Emmett, Bridget; Garbutt, Angus; Jones, Laurence; Rowe, Ed; Sheppard, Lucy; **Vanguelova, Elena;** Pitman, Rona; Britton, Andrea; Hester, Alison; Ashmore, Mike; Power, Sally; Caporn, Simon (2011) [UK Status Report July 2011: Update to empirical critical loads of nitrogen. Report to Defra under contract AQ801 Critical Loads and Dynamic Modelling](#). NERC/Centre for Ecology & Hydrology, 57pp.

Vanguelova, E., Pitman, R. and Broadmeadow S. (2011). *Terrestrial Umbrella: Eutrophication and Acidification of Terrestrial Ecosystems*. Final report of the Forest Research sub-contract to the Department for the Environment, Food and Rural Affairs, February, 2011.

Vanguelova E, Pitman R (2011). Impacts of Short Rotation Forestry on Soil Sustainability. In McKay, H. (ed.) (2011) "Short Rotation Forestry: review of growth and environmental impacts". *Forest Research Monograph, 2*, Forest Research, Surrey, 212pp. ISBN 978-0-85538-827-0.

Vanguelova, E.I. and Pitman, R. (2010). Impacts of Short Rotation Forestry on soil sustainability – a Review. Report in DEFRA's Review of "Environmental Impacts of Short Rotation Forestry". Forest Research report, March 2010.

Vanguelova, E., Pitman, R. and Broadmeadow S. (2010). *Terrestrial Umbrella: Eutrophication and Acidification of Terrestrial Ecosystems*. Final report of the Forest Research sub-contract to the Department for the Environment, Food and Rural Affairs, February, 2010.

Morison, J., **Vanguelova, E.**, Broadmeadow, S., Perks, M., Yamulki, S. and Randle, T. (2010). Understanding the GHG implications of forestry on peat soils in Scotland. Forest Research report for FC Scotland, May, 2010, 43pp.

Vanguelova, E.I. and Rayner, B. (2010). Peninsula soil and tree foliar chemistry report. Forest Research Report, 5 March, 2010, 7pp.

Vanguelova, E.I. (2010). Soil baseline assessments at the Short Rotation Forestry sites in Scotland. Forest Research report for FC Scotland, 15 March, 2010, 5 pp.

Vanguelova, E.I. (2010). BioSoil case study: Evaluation of the quality and changes in UK forest soils. European Commission. Forest soil and biodiversity monitoring in the EU. Luxembourg: Publications Office of the European Union 2010 – 32 pp.; ISBN 978-92-79-14992-4; doi:10.2779/16475.

House, J., Clark, J., Gallego-Sala, A., Orr, H., Ayles, J., Bardgett, R., Billett, M., Bonn, A., Caporn, S., Chapman, S., Clutterbuck, B., Evans, C., Evans, M., Farewell, T., Freeman, C., Grayson, R., Hall, J., Holden, J., McMorrow, J., Milledge, D., Nayak, D., Ostle, N., Parry, L., Prentice, C., Stevens, C., Smith, J., Smith, P., **Vanguelova, E.**, Ward, S., Waldron, S., White, S., Worrall, F., Yallop, A. (2010). Vulnerability of upland peatland services to climate change. Environment Agency Science Report SC070036/SR.

Vanguelova, E.I. and 55 EU experts (2009). Sustainable forest management for climate change mitigation "Impacts of intensive forest management for biofuel on soil sustainability". EU COST Action full proposal. January, 2009.

Vanguelova, E. and Broadmeadow S. (2008). *Terrestrial Umbrella: Eutrophication and Acidification of Terrestrial Ecosystems*. Annual report of the Forest Research sub-contract to the Department for the Environment, Food and Rural Affairs, November, 2008.

Hudson, T.M., **Vanguelova, E.I.**, Lynch, J.M., Burton, S.K., Lappin-Scott, H.M. (2008). Seasonal effects on microbiological methane cycling in UK forest soils. Internal report to Forestry Group, Forestry Commission.

Whitby, C., Thorpe, E., Nedwell, D., **Vanguelova, E.I.** (2008). Impact of Nitrogen deposition on microbial communities and their function in relation to carbon/nitrogen cycling in forest soils. Internal report to Forestry Group, Forestry Commission.

Vanguelova, E.I., Barsoum, N., Benham, S., Broadmeadow, M., Moffat, A., Nisbet, T. and Pitman, R. (2007). Ten years of intensive environmental monitoring of British forests. Forestry Commission Information Note 88.

Broadmeadow, M., **Vanguelova, E.**, Wohlebber, T. (2007). *Terrestrial Umbrella: Eutrophication and Acidification of Terrestrial Ecosystems*. Final report of the Forest Research sub-contract to the Department for the Environment, Food and Rural Affairs.

Emmett, B.; Black, H.I.J.; Bradley, R.I.; Elston, D.A.; Reynolds, B.; Creamer, R.; Frogbrook, Z.L.; Hudson, G.; Jordan, C.; Lilly, A.; Moffat, A.; Potts, J.; **Vanguelova, E.**, (2007), National Soil Monitoring Network: Review and assessment study. Final report. *SNIFFER, Project LQ09*.

Poulter, S., Senior, N.J., **Vanguelova, E.**, Whitby, C. and Lappin-Scott, H. (2006). Forest soil nitrogen in relation to soil microbial diversity and functions (Thetford study). Internal report to Forestry Group, Forestry Commission.

Pitman R. and **Vanguelova E.** (2006). Influences of stand age and soil properties on forest biodiversity. In: Forest Research annual report and accounts 2004/2005. The Stationery Office, Edinburgh.

Lenaerts, J., Whitby, C, **Vanguelova, E.**, Pitman, R., Lappin-Scott, H. and Lynch, J. (2005). Forest soil nitrogen in relation to soil microbial diversity and functions (Alice Holt study). Internal report to Forestry Group, Forestry Commission.

Bradley, I., A.J.Moffat, **E. Vanguelova**, P. Falloon & J. Harris. (2005). Impacts of climate change on soil functions. DEFRA project, report SP0538, London.

Lenaerts, J., Whitby, C., **Vanguelova, E.**, Pitman, R., H.M. Lappin-Scott and Lynch, J. (2005). Forest soil nitrogen in relation to soil microbial diversity and functions. Forestry Commission Report, Alice Holt, Farnham, 22 pp.

Vanguelova, E. (2004). Application of Level II data in soil sustainability research. A report for Forestry Group, Forestry Commission, 26 pp.

Broadmeadow, M., Kennedy, F., **Vanguelova, E.**, Broadmeadow, S., Pitman, R., Crow, P. and Griffiths, M. (2004). Terrestrial Umbrella: Eutrophication and acidification of terrestrial Ecosystems. Final Report of the Forest Research sub-contract to the Department for Environment, Food and Rural Affairs.

Vanguelova E.I. (2003). Soil acidification and fine root response of Scots pine. Unpublished PhD thesis, The University of Reading, UK.

Books, book chapters and published conference proceedings

Vanguelova, E., Pitman, R. and Benham, S. (2018). Long term trends and effects of nitrogen input on forests and soils in the UK. Proceedings of the International Conference of forest soils, Quebec, Canada, June, 2018.

Vanguelova, E. and Benham, S. (2018). Base cations budgets of forest ecosystems in the UK. Proceedings of the International Conference of forest soils, Quebec, Canada, June, 2018.

Vanguelova, E.I., Pitman, R. and Benham, S (2018). Responses of forest ecosystems in the United Kingdom to nitrogen deposition. Proceedings of the International Conference of forest soils, Quebec, Canada, June, 2018.

Vanguelova, E. I. 2015. Protection of British forests soils in a changing management and policy challenges. In "Soil degradation Risks in Planted Forests" edited by Gonzalez and Bengoetxea (2015), publisher - Eusko Jaurilaritzaren Argitalpen Zerbitzua, VI 410-2015.

Vanguelova, E. Pitman, R., Benham, S., Wilkinson, M., Komarov, A., Khoraskina, Y. and Bykhovets, S. (2011). Long term changes in soil carbon at Alice Holt forest modelled by ROMUL (forest soil organic matter process model). Proceedings of EU COST 0803 meeting "Carbon balance after disturbances and drought", 27 June -1 July, 2011, Barcelona, Spain.

Villada, A., Shaw, L., Verhoef and **Vanguelova, E.** (2011). Effect of tree species and soil type on chemical and physical carbon fractions in UK forest soils. Proceedings of EU COST 0803 meeting "Carbon balance after disturbances and drought", 27 June -1 July, 2011, Barcelona, Spain.

Vanguelova, E. and Pitman, R. (2011). Impacts of N inputs on forests and forest soil biogeochemistry in Great Britain. Paper in proceedings of "Nitrogen & Global Change – Key findings – future challenges", April 11-15, 2011, Edinburgh, UK.

Rajapaksha, N. S. S., Butt, K. R., **Vanguelova, E.** and Moffat, A. J. (2011). Soil fauna diversity under Short Rotation Forestry- Impacts and Responses. Proceedings of the British Ecological Society annual Symposium: Forests and Global Change, University of Cambridge, UK, 28 – 30 March 2011.

Pitman, R., **Vanguelova, E.**, Benham, S and Perks, M. (2011). Impacts of tree stump removal on soil carbon, soil nutrients and tree growth in UK. Proceedings, "Tree stumps for Bioenergy" Symposium, 24-26 October, 2011, Uppsala, Sweden.

Vanguelova, E.I., Reynolds, B., Nisbet, T. and Godbold, D. (2011). The cycling of pollutants in non-urban forested environments. In: Levia, D.F., Carlyle-Moses, D.E. and Tanaka, T. (Eds.), *Forest Hydrology and Biogeochemistry: Synthesis of Past Research and Future Directions*. Ecological Studies Series, No. 216, Springer-Verlag, Heidelberg, Germany: DOI 10.1007/978-94-007-1363-5_34.

Vanguelova, E., Armolaitis, K., Beniusis, R., Berger, T., Bonifacio, E., Guicharnaud, R.A., Heim, A., Püttsepp, Ü., Tobin, B., Walthert, L., Yildiz, O., Zhiyanski, M., Zimmermann, S. (2010). Evaluation of litter and soil C stocks and uncertainties in European forests. Proceedings of EU COST 0803 meeting in Slovenia, 1-4 September, 2010.

Villada, A., **Vanguelova, E.**, Verhoef, A., Shaw, L. (2010). Development and evaluation of a sequential extraction procedure for characterization of water soluble soil organic carbon in forest soil samples. Proceedings of EU COST 0803 meeting in Slovenia, 1-4 September, (2010).

Vanguelova, E.I. and Nisbet, T. (2010) Protection of forest soils and water in a changing climate – management and policy challenges. *SAC/SEPA Proceedings "Climate, Water and Soil Science, Policy and Practice"* 31 March-1 April 2010, Edinburgh; pp.146-153.

Vanguelova, E.I., Pitman, R. (2009). Impact of N deposition on soil and tree biochemistry in both broadleaved and coniferous stands in the UK. In "6th International Symposium on Ecosystem Behaviour BIOGEOMON 2009", Liisa Ukonmaanaho, Tiina M. Nieminen and Mike Starr (eds.), ISSN 1795-150X, pp.184

Vanguelova, E.I., Pitman, R., Luiro J. and Helmisaari H-S. (2009). Long term effects of whole tree harvesting on soil nutrient sustainability in the UK. . In "6th International Symposium on Ecosystem Behaviour BIOGEOMON 2009", Liisa Ukonmaanaho, Tiina M. Nieminen and Mike Starr (eds.), ISSN 1795-150X, pp.481

Vanguelova, E.I., Nisbet, T., Moffat, A. (2009). Evaluation of carbon stocks in UK forest soils. In "6th International Symposium on Ecosystem Behaviour BIOGEOMON 2009", Liisa Ukonmaanaho, Tiina M. Nieminen and Mike Starr (eds.), ISSN 1795-150X, pp.320

Langan, S., Fransson, L. and **Vanguelova, E.** (2009). Dynamic modelling of UK forest soils to changes in acid deposition using the SAFE model. . In "6th International Symposium on Ecosystem Behaviour BIOGEOMON 2009", Liisa Ukonmaanaho, Tiina M. Nieminen and Mike Starr (eds.), ISSN 1795-150X, pp.185

Clark, J., Gallego-Sala, A., Chapman, S., Billett, M., Coppel, R., Evans, C., Evans, M., Farewell, T., Freeman, C., Gloor, E., Heinemeyer, A., House, J., Lawley, R., Monteith, D., Nayak, D., Orr, H., Prentice, C., Rose, R., Rowson, J., Smith, J., Smith, P., Worrall, F., **Vanguelova, E.** (2009). Mapping peat vulnerability to climate change to inform policy in the UK. Proceedings, PeatNet, Prague, September, 2009.

Swain, E., Mason, S., Rimmer, D., Perks, M., **Vanguelova, E.I** and Abbott, G.D. (2009). Soil organic matter changes following the afforestation of peaty gley soils with spruce. Proceedings of the International Meeting on Organic Geochemistry (IMOG2009), September, 2009.

Vanguelova, E.I., (2009). Estimation of soil carbon stocks and changes in UK forest soils. Proceedings, Annual BSSS conference, Harriot-Watt University, Edinburgh, Scotland, 5-7 May, 2009.

Vanguelova, E.I. (2009). Sustainable forest management for climate change mitigation "Impacts of intensive forest management for biofuel on soil sustainability". EU COST proposal at the 7th Meeting of the Domain Committee on Forest, their Products and Services (DC FPS), Zagreb, Croatia, 4-6 March, 2009.

Vanguelova, E.I., Benham B. and Pitman, R. (2008). What has forest monitoring shown and how can be adapted for future drivers? Proceedings of EU COST Strategic Workshop: Forest Ecosystems in a

Changing Environment: Identifying Future Monitoring and Research Needs 11-13 March, 2008, Istanbul, Turkey.

Pitman R., **Vanguelova, E.I.**, and Benham B. (2008). Effects of phytophagous insects on the nutrient fluxes through forest stands in the UK Level II network. Proceedings of EU COST Strategic Workshop: Forest Ecosystems in a Changing Environment: Identifying Future Monitoring and Research Needs 11-13 March, 2008, Istanbul, Turkey.

Vanguelova, E.I. (2008). Forest soil monitoring in the UK. Proceedings from Workshop "BioSoil" in the EUROSIL CONGRESS, Vienna, Austria, August 25 – 29, 2008.

Vanguelova, E.I. (2008). Review of outputs from Working Group 1 "Fine roots as indicators of environmental change". Proceedings of EU COST E38 meeting "Woody Roots and Ecosystem Services", 16-20 May, Lisbon, Portugal.

Vanguelova, E.I. (2008). Responses of forest soils to pollution recovery - evidence from the UK. Proceedings from the 14th EU Forest Soil Expert Panel Meeting, UN/ECE International Co-operative Programme on Assessment and Monitoring of Air Pollution Effects on Forest, Florence, Italy, 16-18 April, 2008.

Hudson, T.M., **Vanguelova, E.I.**, Lynch, J.M., Burton, S.K., Lappin-Scott, H.M. (2008). Seasonal effects on microbiological methane cycling in UK forest soils. Proceedings from the annual meeting of the Society for General Microbiology, International Conference Centre, 31 March – 3 April, 2008, Edinburgh.

Vanguelova, E.I., Benham, S. and Pitman R. (2007). Changes in rainfall, throughfall and soil solution chemistry in the Level II long term forest monitoring plots. *In* Derome, J., Lindroos, A.J. and Kilponen, T. (eds.) Forest Condition Monitoring and Ecosystem Functioning in Northern Europe under the Forest Focus and ICP Forests Programmes, Vantaa 27. – 28.11.2007. ISBN 978-951-40-2088-9 (PDF); ISSN 1795-150X.

Vanguelova, E. Ostonen, I., Radoglou, K. Cudlin, P. (2007). Fine roots and ectomycorrhiza – indicators of environmental change. Proceeding of the "4th International Symposium on Physiological Processes Roots of Woody Plants", 16th to 20th September 2007, University of Wales, Bangor, UK.

Vanguelova, E., Moffat, A.J. and Lynch, J. (2006). Impact of forestry on soil quality in the UK. Expert Workshop on Definition of Best Indicators for Biodiversity and Soil Quality for Life Cycle Assessment (LCA). Proceedings and Conclusions, Guildford, 12-13 June, 2006. ISSN: 1464-8083, pp. 24-27.

Vanguelova E., Moffat, A.J., Nortcliff S., and Kennedy F.M. (2004). Soil acidification as influenced by natural and manipulated environmental conditions: implications for productivity and nutrition. In international Symposium "Forest soils under global and local changes: from research to practice", 15 – 18 September 2004, Bordeaux, France, Proceedings pp.94-97

Vanguelova, E.I., Moffat, A.J., Nortcliff, S. and Kennedy, F. (2004). Fine roots of Scots pine (*Pinus sylvestris*) as affected by aluminium and soil acidity. Proceedings, EU COST E38: Woody Root Processes under a Changing Environment, Workshop, 27-30 October, Thessaloniki, Greece, pp. 15.