

John N. Quinton

Current and past posts

2009-present	Professor of Soil Science, Lancaster Environment Centre, Lancaster University
2008-present	Leader, Catchment and aquatic processes research theme. Lancaster Environment Centre
2006 –2009	Reader in Soil Science, Department of Environmental Sciences, Lancaster University
2002–2006	Senior Lecturer, Department of Environmental Sciences, Lancaster University
2001–2002	Head, Landcare Group, National Soil Resources Institute, Cranfield University
2000–2002	Senior Lecturer in Soil Erosion and Sedimentation, Cranfield University
1995–1999	Lecturer in Soil and Water Management, Cranfield University
1988–1995	Research Scientist in Soil Erosion Modelling and Control, Cranfield University
1986–1987	Research Assistant, Institute of Soil and Water, Volcani Centre, Israel

Academic and professional qualifications

PhD thesis: The validation of physically-based erosion models – with particular reference to EUROSEM, Cranfield University, 1994

BSc Soil Science with subsidiary Geology (2:1), University of Reading, 1988. Prize for Soil Science.

Chartered Scientist (2005–present)

Member of the Institute of Professional Soil Scientists (1997–present)

Fellow of the Higher Education Academy (2000–present)

Professional and personal development whilst in post

Have undertaken professional development courses in teaching large groups, staff appraisal, selection procedures, fierce conversations, CSL programming and chairing meetings

Teaching

Innovation and leadership

At Lancaster

- Deputy Director of Postgraduate Studies for LEC (2003-2008). Responsible for recruitment of students to MSc programmes. Chaired PG exam boards.
- Chaired a group making recommendations on part-time access to undergraduate and postgraduate courses and the restructuring of teaching into a one-day modular structure.
- Instigated a new scheme for monitoring PhD students within the department, commended at faculty level.
- Won a Royal Society Partnership Grant to help a primary school develop soils teaching.

At Cranfield

- Managed the transition from continuous teaching to a two-week modular system on the MSc in Natural Resource Management and introduced two integrating exams for MSc programmes, replacing examinations for individual modules.
- Led the Land and Water Management MSc course team. Responsible for the dissemination of best practice and quality across a range of MSc courses.
- Developed links with the Universities of Vienna and Turin to enable their fourth-year degree students to undertake a Cranfield MSc.

Teaching quality

- Developed an innovative delivery mechanism for my Environmental Risk Assessment Module using podcasts, YouTube, VLEs, workshops and online activities. This has which has improved the feedback score of the module and is used as an example of best practice by the Centre for Learning and Teaching.
- Committed to participatory forms of teaching and learning, using a wide variety of techniques including debates, problem-based approaches, role playing and integrated practical and lecture classes to enhance the learning experience.
- Improved the quality of the Environmental Impact Assessment Module, with its feedback score increasing from 3.08 to 3.64 out of five, and the performance of the candidates increasing from a mean of 48% to 60%.
- External examiner for BSc Environmental Geoscience at University of Bristol (2007–2009)
- External examiner at University of Manchester, Newcastle University, King's College London, Reading University, University of Bristol and Lancaster University (while at Cranfield) for PhDs.
- Built a network of external contacts supporting taught courses (e.g. Aggregate Industries, Cumbria County Council, CPM Consultancy) and student project work (e.g. WS Atkins, Environment Agency, Cumbria Wildlife Trust, CEH).

Teaching duties at Lancaster

- Course director MSc Environmental Science and Technology (2008-present)
- Course director MSc Environmental Impact Assessment (2003–2006).
- ENV 201 Environmental Impact Assessment, 15 lectures, four 4-hour labs (60 students) (2002–2006).
- ENV 345 Environmental Risk Assessment and Management, 3 lectures, 4 workshops (3 repeats, four 4-hour labs (2 repeats) (60 students) (2004-present).
- ENV 213 Soil Science, one 1-day field class (60 students) (2006-2007).
- ENV 440 Environmental Impact Assessment, one 4-hour lab (25 students) (2002–2006).
- ENV 450 Environmental Risk Assessment and Management, 3 lectures, 4 workshops, four 4 hour labs (25 students).
- ENV 200 Carrock Fell field course, one 6-day field class (80 students) (2007-present).
- Pre-sessional English, one lecture, one seminar (20 students).

Research

International and national recognition

- Invited member of European Geosciences Union's Soil Systems Science steering group (2005–2010).
- Invited member of European Geosciences Union's Hydrological Science steering group (2007–2012).
- Associate Editor of the *European Journal of Soil Science* (2004–2009).
- Reviewer of the Department of Environment, Food and Rural Affairs (Defra) phosphorus research programme (2004) and soil protection research programme (2008).
- Evaluator for EU Framework 6 research programme.
- Reviewer for the Netherlands Council for Earth and Life Sciences (2005).

Research output

- Lead author on the most highly cited soil erosion publication since 1995 and the 6th most cited soil erosion paper since 1945.
- Have published or submitted 90 research articles including 50 journal papers.
- Developed soil erosion prediction software which has been downloaded by 700+ scientists and professionals from 68 countries since 2001.
- Invited to submit a perspectives article on Soil Erosion and Soil Functions to the journal *Science*.
- Convenor of international and national meetings on soil erosion and diffuse pollution.

Income generation and enterprise

- A sustained and above-average record of income generation from research councils, government departments, industry and the EU, winning research worth £2.4 million (£2.1 million income to the University) since coming to Lancaster and £3.1 million in the last ten years (see list).
- Acted as a consultant by the world's largest agro-chemical company, Syngenta. Helping them to manage a multi-million pound investment in sustainable agriculture research.

Keynote and invited talks

- **Quinton, J.N.** Linking soil to simulations and lab to the land: can new technologies unravel the mysteries of sediment transport? To be presented at *Commission on Land Degradation & Desertification's International Conference on Land and Water Degradation Processes and Management*, 6-9 September 2009, Magdeburg, Germany. (Keynote)
- **Quinton, J.N.** Monitoring the impact of soil erosion on soil functions. To be presented at USDA-JRC workshop 'Closing the loop: increasing effectiveness of agricultural land conservation programs through monitoring and assessment.' New York City, 16 February 2009.
- **Quinton, J.N.** Soils, erosion and biogeochemical cycles. Presented at *UK ERA-NET workshop on Perspectives on contaminant mobilisation in headwater catchments*, 3-4 June 2008, Lancaster, UK.
- **Quinton, J.N and Halsall, C.** Translating from the model to the mud, the lab to the land: issues of scale and knowledge in environmental science. Presented at *The 4th EPSRC/NERC Water, Environment and Society Seminar*, 14 December 2006. Lancaster University, Lancaster, UK.
- **Quinton, J.N.** Overland flow and erosion as a process of phosphorus loss. Presented at Soil conservation, management, perception and policy. 5–7 June 2005, Rouen, France. (Keynote).

- **Quinton, J.N., Freer, J. and Strauss P.** But does it reach the stream? Presented at *Modelling the risk of spatially distributed sediment sources connecting with surface water bodies. Soil erosion and sediment redistribution in river catchments: measurement, modelling and management in the 21st Century*, 9–11 September 2003, Cranfield University, Cranfield, UK.
- **Quinton, J.N. and Collins, A.J.** Planning and decision-making. Presented at *Inaugural SedNet conference*, 22–23 April 2002, Venice, Italy (Keynote).
- **Quinton, J.N., Strauss, P., Miller, N., Azazoglu, E., Yli-Halla, M. & Uusitalo, R.** The potential for soil P tests to predict phosphorus losses in overland flow. Presented at *The development of a risk assessment methodology for predicting phosphorus losses at the field scale*, 16–19 October 2002, Zurich, Switzerland.
- **Quinton, J.N.** Phosphorus detachment: processes and interactions. Presented at *The international workshop on phosphorus transfer: connecting phosphorus transfer from agriculture to impacts in surface waters*, 28 August–1 September 2001, Plymouth. (Keynote).
- **Quinton, J.N.** Detachment and transport of particle bound P: processes and prospects for modelling. Presented at *Phosphorus inputs from agriculture*, 13–15 May, 1999, University of Cordoba, Cordoba, Spain.
- **Quinton, J.N. & Rodriguez, F.** Modelling the impact of live barriers on soil erosion in the Pairumani sub-catchment, Bolivia. Presented at *Poverty, rural livelihoods, and land husbandry in hillside environments*, 6–8 January 1999, Cranfield University.
- **Quinton JN, Morgan RPC.** EUROSEM: An evaluation with single event data from the C5 watershed, Oklahoma, USA Presented at *Modelling Soil Erosion By Water, Nato Advanced Science Workshop*, 11–14 September, 1995, Oxford University.
- **Quinton, J.N. and Morgan, R.P.C.** Description of the European soil erosion model (EUROSEM) and an example of its validation. Presented at *Soil erosion processes on steep lands – evaluation and modelling*, 1993, Merida, Venezuela. (Keynote).

Research leadership

- Leader LEC's inter-institutional Catchment and Aquatic Processes research group which has 71 members across the University and CEH (2008-present).
- Lead inter-institutional and interdisciplinary research projects funded by NERC, BBSRC and Defra.
- Founding member of the Demand Driven Sediment Network (SEDNET), which linked European researchers with industry and government, and leader of the working group on catchment scale management of sediment in the network.
- Manage a team of two PDRA's, two PhDs (two recently submitted) and a technician people; previously led the 13-strong Landcare research group at the National Soil Resources Institute.
- Convened a session on soil erosion and landscape scale carbon dynamics at the EGU 2005; co-convened sessions on spatial soil erosion modelling and soil erosion assessment at the EGU 2007; co-convened two sessions on 'Soils as a sink, regulator and source of diffuse pollutants' and 'Linking the land to the water: understanding the impacts of soil erosion and nutrient loss on soil and water quality from hillslope to large catchment scales' at EGU 2008; convening a session on 'Tracing sediments and colloids in the environment' and co-convening a session on 'Experimental Methods in Soil Erosion Studies' at EGU 2009.

Research and policy linkages

- Advising Defra on the policy implications of the proposed EU Soil Framework Directive (2008-present)
- Input in to revision of Defra's entry level and higher tier environmental stewardship schemes (2007).

- Gave evidence to the Conservative Party's 'Blueprint for a green economy' policy review and research featured in final document (2007).
- Consultee on Defra's whole farm approach to pollutant management (2007).
- Sit on the Wyre Catchment Sensitive Farming steering committee (2006–present).

Academic and scholarly positions

- Member of EU COST action on Diffuse Pollution (2006–present).
- Member of EU COST actions on Phosphorus and Soil Erosion (1998–2006).
- Member of Global Change in Terrestrial Ecosystems (GCTE) soil erosion working group (1994–2005).
- Member of advisory board to Student Aid for Appropriate Development (UK-based NGO) (1998–02).
- Council member of the Institute of Professional Soil Scientists (1998–2002).
- Council member of the British Society of Soil Science (1993–96).
- Recipient of an OECD Fellowship in Biological Resource Management for Sustainable Agricultural Systems (1995).

Research supervision and examining

Research staff

Nine research assistants: Edwards (1993–1996); Veihe (1996–2000); Kotova (2000–2001); Clarke (2001–2002); Llewelyn (2000–2002); Collins (2002); Stevens (2005–2006; 2009–present); Deasy (2007–present), Armstrong (2007–present).

PhD students in years 1–3 full-time (or 1–6 part-time)

Pryce, O. Development of sediment and phosphorus tracers (Supervisor).
 Kruegar, T.. Modelling phosphorus losses from small catchments (Joint supervisor with Freer, Bristol).

PhD students who have graduated

Stark, H. 1994. Wetland risk assessment. Cranfield University. PhD (Supervisor)
 Audu, I. 1999. Development and application of a runoff model for water harvesting in North East Nigeria. Cranfield University. PhD (Joint supervisor).
 Archer, N.A.L. 2000. Water use in two-phase mosaic vegetation. Cranfield University. PhD (Supervisor).
 Miller, N. 2005. Mobilisation of phosphorus from soil surfaces. Cranfield University. PhD (Supervisor for first two years before coming to Lancaster).
 Yussoff, W.A. 2008. Use of zeolites to control diffuse pollution. PhD (Supervisor).
 Buckingham, S. 2008. Carbon release from catchments. PhD. (Joint supervisor with Hamilton-Taylor and Tipping CEH).
 Ball, A. 2008. Carbon export from degraded and intact blanket peat in the North Pennines, UK'. MPhil. (Joint supervisor with Ostle CEH).

External examining

Abraham, N. 1999. Hydrological Process Modelling of Tropical Lateritic Hillslopes. Indian Institute of Technology, Kharagpur. PhD.
 Brazier, R.E. 2000. An investigation into a GIS based approach for modelling hillslope soil erosion in England and Wales. Lancaster University. PhD.

- Ampontuah, E.O. 2004. Model input resolution effects on the prediction of sediment and nutrient transport from agricultural fields. Reading University. PhD.
- Meuller, E. 2004. Modelling geochemical flows in a desert environment. Kings College London. PhD.
- Martin, G. 2006. Modelling hillslope-channel coupling and sediment delivery in semi-arid areas. University of Bristol. PhD.
- Rothwell, J. 2006. Fluvial export of heavy metals from contaminated and eroding peatlands, southern Pennines, UK. University of Manchester. PhD.
- Jonczyk, J. 2007. Processes leading to nutrient pollution at the field and sub-catchment scale. University of Newcastle. PhD.
- Fox, J.E. 2008. Bioengineering technology of quick grass establishment for erosion control on railway batters. University of Queensland. MSc.

Internal examining

- Fraser, A. 2000. Towards a systematic framework for quantifying and extrapolating diffuse phosphorus transfer from agricultural fields to the national scale. Cranfield University. PhD.
- Mendes Eilers, V.H. 2002. The estimation of groundwater recharge by soil water balance in semi arid regions. Cranfield University. PhD.
- Pappenberger, F. 2004. Uncertainty in the prediction of flood inundation. Lancaster University. PhD.
- Lawless, A.J. 2004. Experimental measurements and modelling of metal binding by environmental solids before and after selective chemical extractions. Lancaster University. PhD.
- Ward, S.E. 2006. The effects of burning and grazing on peatland carbon dynamics. Lancaster University. PhD.
- Dean, S. 2007. Phosphorus losses in the Ribble Catchment. Lancaster University. PhD.
- Luo, J. 2009. Effect of soil dynamics on metal uptake by plants and diffusive gradients in thin-films. Lancaster University. PhD.

Research income

All grants over £10 000 listed. Unbracketed figure indicates income to University, bracketed figure indicates total grant value for grants I have led. PI=principal investigator, CI=co investigator.

Contract	Sponsor	Amount to University	Date	Collaboration	Staff	Role
Practical-cost effective solutions to reduce pollution from tramlines	DEFRA-LINK	£88 023*	2009-2012	ADAS + industrial partners	1 PhD	CI
Mitigation of phosphorus and sediment II	DEFRA	£492 001 (£990 000)	2008-2013	ADAS, Reading, Allerton Trust	1 PDRA, 0.5 technician	CI
Mitigation of phosphorus and sediment II (enabling)	DEFRA	£ 64 948	2008	ADAS		PI
Upland grassland and water quality	DEFRA	£11 777 (£15 107)	2007-2008	CEH	0.05PDRA	PI
Multi-dimensional soil erosion modelling	NERC	£362 762 (£685 348)	2007-2010	Loughborough	1 PDRA, 0.5 Technician	PI
Phosphorus mobilisation with sediment and colloids through drained and undrained grasslands	DEFRA	£65 610	2005–2009	IGER, Sheffield, CEH	1 PhD	CI
Field testing of mitigation options	DEFRA	£240 810 (£448 323)	2005–2008	Reading, ADAS	1 PDRA	PI
Environmental P test (DESPRAL)	EU	€142 147	2000–2004	Five EU partners	1 PhD	CI
Phosphorus transport processes	DEFRA	£32 000	2002–2003	NSRI, ADAS	0.3 PDRA	CI
Soil carbon and surface crust formation (joint)	DEFRA	£60 000	2001–2003	BBSRC–SRi	1 PDRA	CI
Sustainable agriculture in olives, vines and top fruit	Syngenta	c.£40 000 pa	2001–2002		1 RA	PI
Demand driven sediment network	EU	€123 000	2002–2005	Seven EU partners	0.2 PDRA	CI
Optimising soil management to prevent contamination of surface waters by sediment, phosphorus and microorganisms	BBSRC	£114 085 (£212 464)	2000–2003	Applied Maths, CU	0.75 Tech	PI
Modelling within storm erosion dynamics (joint)	EU	€94 900	1998–2001	Six EU partners	1 PDRA	CI
Improved soil and water conservation practices in the Andean Valleys of Bolivia	DFID	£17 262	1996–1999	BBSRC–SRi	0	CI
Influence of vegetation on the movement of water in semi-arid southern Spain	EU	€149 657	1996–1999	30+ EU partners	1 PhD	CI
Soil productivity indices and their erosion sensitivity	EU	€136 443	1996–2000	One EU and three Central American partners	1 PDRA	CI

*agreed with sponsor, subject to contract.

Publication lists

Five key publications [ISI Web of Science citations 20/1/09|Google Scholar citations 3/2/09]

Morgan, R.P.C., Quinton, J.N., Smith, R.E., Govers, G., Poesen, J.W.A., Auerswald, K., Chisci, G., Torri, D. and Styczen, M.E. 1998. The European Soil Erosion Model (EUROSEM): A dynamic approach for predicting sediment transport from fields and small catchments. *Earth Surface Processes and Landforms*, 23: 527–544. [172|192]

This paper has had more citations than any other paper on soil erosion since 1995 (7796 papers) and is the 6th most cited paper on soil erosion in the ISI database. It represents the culmination of nine years' work on the development of the European Soil Erosion Model (EUROSEM). EUROSEM is still the only widely available truly dynamic and distributed soil erosion model and is used worldwide. I wrote this paper with Prof. Roy Morgan and Dr Roger Smith, with limited input from the other authors. I am named as the corresponding author.

Quinton, J.N., Catt, J.A. and Hess, T.M. 2001. The selective removal of phosphorus from soil: is event size important? *Journal of Environmental Quality*, 30: 538–545. [46|64]

This paper is important since it demonstrates that the selectivity of erosion may lead to more pollutants being transported in small events than in large events, which was contrary to received wisdom. It is the fifth most cited paper on soil erosion and phosphorus published in 2001.

Quinton, J.N. 1997. Reducing predictive uncertainty in model simulations: a comparison of two methods using the European Soil Erosion Model (EUROSEM). *Catena*, 30: 101–117. (A) [35|43]

A key paper as it demonstrated for the first time that the use of physically based erosion models would result in considerable uncertainty in erosion predictions. It also showed erosion modellers that many parameter sets were capable of simulating the same response.

Quinton, J.N. and Catt, J.A. 2007. Soil erosion and metal transport from agricultural fields. *Environmental Science and Technology* 41 (10): 3495–3500. [4|–]

This is the first paper describing the losses of sediment associated heavy metals from agricultural fields and demonstrates that this is a significant pollutant source. Quinton led the research, Catt analyzed samples and discussed findings.

Quinton, J.N., Catt, J.A., Wood, G.A. and Steer, J. 2006. Soil carbon losses by water erosion: experimentation and modelling at field and national scales in the UK. *Agriculture, Ecosystems and Environment* 112: 87–102. [8|6]

This paper provides some of the first experimental evidence linking erosion and carbon dynamics over a medium timescale (ten years); it demonstrates the significant impact of erosion and burial on the terrestrial carbon cycle. Quinton led the research, co-authors contributed GIS skills, sample analysis and discussions.

Peer reviewed journals (A senior author, B major contributor, C secondary author)

Armstrong, A. And Quinton, J.N. accepted. Pumped rainfall simulators: the impact of rain pulses on sediment concentration and size. *Earth Surface Processes and Landforms* (B)

Stevens, C.J., Quinton, J.N., Bailey, A.P., Deasy, C, Silgram, M. and Jackson, D.R. accepted. The effects of minimal tillage, contour cultivation and in-field vegetative barriers on soil erosion and phosphorus loss. *Soils and Tillage Research* (A)

Silgram, M., Jackson, R., Quinton, J., Stevens, C., and Bailey, A. accepted. Can tramline management be an effective tool for controlling sediment loss from combinable crops? *Earth Surface Processes and Landforms.* (B)

Stevens, C.J. and Quinton, J.N. accepted. Pollution swapping in arable agricultural systems. *Critical Reviews in Environmental Science and Technology.*

Stevens, C.J. and Quinton, J.N. 2009. Policy Implications of Pollution Swapping. *Physics and Chemistry of the Earth.* (B) 34, 589-594 doi:10.1016/j.pce.2008.01.001

Krueger, T., Quinton, J.N., Freer, J., Macleod, C.J.A., Bilotta, G.S., Brazier, R., Butler, P. and Haygarth, P.M. 2009. Uncertainties in data and models to describe agricultural sediment and phosphorus transfer event dynamics. *Journal of Environmental Quality* 38, 1137–1148 (B)

Miller, N., Quinton, J.N., Barberis, E. and Presta, M. 2009. Variability in the mobilisation and transport of sediment and phosphorus across 13 European soils. *Journal of Environmental Quality* 38, 742–750 (A)

Quinton, J.N. and Brazier, R.E. 2008. Letter to the Editor. *Soil Use and Management* 24, 427-428.

Bilotta, G.S., Brazier, R.E., Butler, P., Freer, J., Granger, S., Haygarth, P.M., Krueger, T., Macleod, C.J.A, Quinton, J. 2008. Rethinking the contribution of drained and undrained grasslands to sediment related water quality problems. *Journal of Environmental Quality* 37, 906–914. (C)

Stevens, C.J. and Quinton, J.N. 2008. Investigating source areas of eroded sediments transported in concentrated overland flow using rare earth element tracers. *Catena* 74, 31-36 (A) [0|0]

Scholz, G., Quinton, J.N. and Strauss, P. 2008. Implications of simulated climate change for soil erosion: a case study on sugar beet cultivation in Austria. *Catena* 72, 91-105. (B) [0|0]

Withers, P.J.A., Hodgkinson, R.A., Barberis, E., Presta, M., Hartikainen, H., Quinton, J.N., Miller, N., Sisak, I., Strauss, P., Mentler, A. and Azoğlu, E. 2007. An environmental soil test to determine the intrinsic risk of sediment and phosphorus mobilisation from European soils. *Soil Use and Management* 23, 57–70. (B)

Quinton, J.N and Catt, J.A. 2007. Soil erosion and metal transport from agricultural fields. *Environmental Science and Technology* 41, 3495–3500 (A)[4|–]

Krueger, T., Freer, J., Quinton, J.N. and Macleod, C. 2007. Processes affecting transfer of sediment and colloids, with associated phosphorus, from intensively farmed grasslands: A critical note on modelling of phosphorus transfers. *Hydrological Processes* 21, 557–562. (B)

Haygarth, P.M., Bilotta, G.S., Bol, R., Brazier, R., Butler, P.J., Freer, J., Gimbert, L.J., Granger, S.J., Krueger, Macleod, C., Naden, P., Old, G., Quinton, J.N., Smith, B. and Worsfold, P. 2006. Processes affecting transfer of sediment and colloids, with associated phosphorus, from intensively farmed grasslands: an overview of key issues. *Hydrological Processes* 20, 4407–4413. (C)

Mati, B.M., Morgan, R.P.C. and Quinton, J.N. 2006. Application of EUROSEM to two catchments in Kenya. *Earth Surface Processes and Landforms* 37: 579–588. (C)

- Quinton, J.N., Catt, J.A., Wood, G.A. and Steer, J.** 2006. Soil carbon losses by water erosion: experimentation and modelling at field and national scales in the UK. *Agriculture, Ecosystems and Environment* **112**: 87–102. (A)
- Ramos, M.C., Quinton, J.N. and Tyrrel, S.F.** 2006. Effects of cattle manure application on erosion rates and runoff. *Journal of Environmental Management*. **78**: 97–101. (A)
- Quinton, J.N. and Catt, J.A.** 2004. The effects of minimal tillage and contour cultivation on surface runoff, soil loss and crop yields in the long-term Woburn Erosion Reference Experiment on sandy soil at Woburn, England. *Soil Use and Management* **20**: 343–349. (A)
- Owens, P.N., Apitz, S., Batalla, R., Collins, A., Eisma, M., Glindemann, H., Hoornstra, S., Kothe, H., Quinton, J., White, S. and Wilkinson, H.** 2004. Sediment Management at the River Basin Scale. *Journal of Soils and Sediments*, **4**: 219–222. (C)
- Audu, I., Quinton, J.N. and Hess, T.M.** 2004. Sensitivity analysis and calibration of the EUROSEM model for application in the north-east zone of Nigeria. *Arid Zone Journal of Engineering, Technology and Environment*, **1**: 17-27. (B)
- Quinton, J.N., Strauss, P., Miller, N., Azazoglu, E., Yli-Halla, M. and Uusitalo, R.** 2003. The potential for soil phosphorus tests to predict phosphorus losses in overland flow. *Journal of Plant Nutrition and Soil Science-Zeitschrift Fur Pflanzenernahrung Und Bodenkunde*, **166**: 432-437. (A)
- Quinton, J.N., Tyrrel, S.F. and Ramos, M.C.** 2003. The effect of incorporating slurries on the transport of faecal coliforms in overland flow. *Soil Use and Management*, **19**: 185-186. (A)
- Rey, J., Veihe, A., Quinton, J.N., Strauss, P. and Sancho, F.M.** 2003. Calibración y evaluación del modelo EUROSEM en América Latina: México, Nicaragua y Costa Rica. *Terra*, **21**: 41-54. (B)
- Tyrrel, S.F. and Quinton, J.N.** 2003. Overland flow transport of pathogens from agricultural land receiving faecal wastes. *Journal of Applied Microbiology*, **94**: 87S-93S. (A)
- Archer, N., Hess, T. and Quinton, J.** 2002. The water balance of two semi-arid shrubs on abandoned land in south-eastern Spain after cold season rainfall. *Hydrology and Earth System Sciences*, **6**: 913-926. (B)
- Archer, N.A.L., Quinton, J.N. and Hess, T.M.** 2002. Below-ground relationships of soil texture, roots and hydraulic conductivity in two-phase mosaic vegetation in south-east Spain. *Journal of Arid Environments*, **52**: 535-553. (B)
- Charpin, J.P.F., Llewelyn, C.A., Myers, T.G., Quinton, J.N. and Thompson, C.P.** 2002. A model for overland flow over agricultural land and application to particle transport (abstract). *Journal of Agricultural Science*, **139**: 103. (C)
- Quinton, J.N., Catt, J.A. and Hess, T.M.** 2001. The selective removal of phosphorus from soil: is event size important? *Journal of Environmental Quality*, **30**: 538-545. (A)
- Veihe, A., Rey, J., Quinton, J.N., Strauss, P., Sancho, F.M. and Somarriba, M.** 2001. Modelling of event-based soil erosion in Costa Rica, Nicaragua and Mexico: evaluation of the EUROSEM model. *Catena*, **44**: 187-203. (B)
- Mati, B.M., Morgan, R.P.C., Gichuki, F.N., Quinton, J.N., Brewer, T. and Liniger, H.P.** 2000. Assessment of erosion hazard with the USLE and GIS: A case study of the Upper Ewaso Ng'iro North basin of Kenya. *International Journal of Applied Earth Observation and Geoinformation*, **2**: 78-86. (C)
- Veihe, A. and Quinton, J.** 2000. Sensitivity analysis of EUROSEM using Monte Carlo simulation I: hydrological, soil and vegetation parameters. *Hydrological Processes*, **14**: 915-926. (A)
- Veihe, A., Quinton, J. and Poesen, J.** 2000. Sensitivity analysis of EUROSEM using Monte Carlo simulation II: the effect of rills and rock fragments. *Hydrological Processes*, **14**: 927-939. (A)
- Folly, A., Quinton, J.N. and Smith, R.E.** 1999. Evaluation of the EUROSEM model using data from the Catsop watershed, The Netherlands. *Catena*, **37**: 507–519. (A)

Leeds-Harrison, P.B., Quinton, J.N., Walker, M.J. and Sanders, C.L. 1999. Grassed buffer strips for the control of nitrate leaching to surface waters in headwater catchments. *Ecological Engineering*, 12: 299–313. (B)

Morgan, R.P.C., Quinton, J.N., Smith, R.E., Govers, G., Poesen, J.W.A., Auerswald, K., Chisci, G., Torri, D. and Styczen, M.E. 1999. Reply to discussion on the European Soil Erosion Model (EUROSEM): a dynamic approach for predicting sediment transport from fields and small catchments. *Earth Surface Processes and Landforms*, 24: 567–568. (A)

Quinton, J. and Rodriguez, F. 1999. Impact of live barriers on soil erosion in the Pairumani sub-catchment, Bolivia. *Mountain Research and Development*, 19: 292–299. (A)

Catt, J.A., Howse, K.R., Farina, R., Brockie, D., Todd, A., Chambers, B.J., Hodgkinson, R., Harris, G.L. and Quinton, J.N. 1998. Phosphorus losses from arable land in England. *Soil Use and Management*, 14: 168–174. (C)

Morgan, R.P.C., Quinton, J.N., Smith, R.E., Govers, G., Poesen, J.W.A., Auerswald, K., Chisci, G., Torri, D. and Styczen, M.E. 1998. The European Soil Erosion Model (EUROSEM): A dynamic approach for predicting sediment transport from fields and small catchments. *Earth Surface Processes and Landforms*, 23: 527–544. (A)

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Administration/management

Business generation and reputation with clients

- Developed a reputation for quality and policy relevant research with Defra leading to repeat business worth £1.7 million.
- Established an excellent reputation with senior managers in Syngenta, the world's largest agrochemical company, who I helped to manage their multi-million pound investment in Sustainable Agriculture.
- Developed postgraduate recruitment links with Mexican universities and the Mexican funding body CONACYT.
- At Cranfield, developed business with Unilever resulting in commercial sponsorship of research.

Departmental and cross-departmental initiatives

- Developing the Lancaster Environment Centre postgraduate website and recruitment literature.
- Overseeing departmental postgraduate recruitment activities, including visit days and advertising strategy and instigating a departmental recruitment DVD.
- Leading the development of research strategy for the LEC Catchment and Aquatic Processes Research Theme.
- Reform of the PhD management system in Environmental Science.
- Key proponent of the one-week modular teaching system introduced at Cranfield, and responsible for helping staff to adjust to changes in course delivery.
- Established links with the University of Vienna and University of Turin, allowing their fourth-year students to take a Cranfield MSc programme and graduate with a qualification from both institutions.

Management

- Lead the LEC Catchment and Aquatic Processes Research Theme with 71 staff.
- Appraisal of staff.
- At Cranfield, responsible for financial and personnel management of 13-strong research group. Led the group through major change in institutional structure (the creation of a new institute from two existing ones).
- Sat on the senior management team of the National Soil Resources Institute, developing strategy at institute level.

Departmental positions

2008–present Course director of MSc Environmental Technology, Lancaster Environment Centre

2003–2008 Deputy Director of Postgraduate Studies, Department of Environmental Science, Lancaster University.

2002–2003 Director of Doctoral Studies, Department of Environmental Science, Lancaster University.

1999–2001 Course director of MSc in Natural Resource Management at Cranfield University.

1997–99 Leader of the Land and Water Management MSc course team at Cranfield University.

1995–1999 Course director MSc in Environmental Water Management at Cranfield University.

University positions

2001–2002 Group leader, Landcare Group, National Soil Resources Institute, Cranfield University.

2001–2002 Member of senior management team, National Soil Resources Institute,
Cranfield University.

1991–2001 Member of the Faculty of Agriculture, Food and Environment's Faculty Board,
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