

Curriculum Vitae

Last name, First name: Scott, Marian

Gender: F

Nationality/ies: British

Overall Scientific Expertise:

[Based on your educational and professional backgrounds, please summarise (up to 100 words) your scientific expertise (disciplinary areas, competencies, etc.) especially your health and environmental risk assessment expertise and experience in risk assessment (*if applicable*).]

I am Professor of Environmental Statistics in the School of Mathematics and Statistics at the University of Glasgow. My work covers a broad range of environmental research strongly driven by applications and collaborations with strategic partners. I am known internationally for my applied work in fields including geochronology, environmental statistics (primarily air, water and radioactivity linked to human health) and sustainability. Current projects and research interests include the water-energy-food nexus, biodiversity and landscape connectivity, air quality and health and new sensor technology for water quality and quantity monitoring.

Professional Experience

[Starting with your present occupation, list in reverse chronological order each activity in which you have been engaged. Please copy and paste more rows if needed.]

Years employed from – to	Title of position	Employer – name and location	Areas of professional specialisation [^]
1984-	Academic, professor	University of Glasgow, Glasgow, UK	Statistics, data analytics, water quality, air quality

[^][*For example:* toxicology (alternative methods, carcinogenesis, endocrine, immunotoxicity, occupational, exposure assessment, genotoxicity, etc.), chemistry (atmospheric, medicinal, peptide, etc.), physics (biophysics, EMF radiation, noise, etc.), engineering (genetic, environmental, medical, etc.), biology (antimicrobial resistance, biophysics, biotechnology, etc.), medicine (allergies, neurology, etc.), epidemiology (clinical, genetic, cancer, etc.) environmental science (air quality, waste treatment, climate change, ecology, etc.), biostatistics, pharmacokinetics, medical technologies, nanoscience, etc...]

Educational Background

[Starting with the most recent, please provide the details of your post-secondary education and/or professional training (e.g. university or its equivalent, postgraduate, postdoctoral). Please copy and paste more rows if needed.]

Year	Degree awarded	Educational Institution – name and location	Areas of educational specialisation*
1983	PhD	University of Glasgow, Glasgow, UK	Statistics
1978	BSc	University of Glasgow, Glasgow, UK	Mathematical Sciences

*[For example: chemistry (analytical, organic, etc.), physics (thermodynamics, nuclear, etc.), engineering (mechanical, electrical, chemical, civil, etc.), biology (microbiology, molecular, etc.), medicine (dermatology, oncology, etc.), environmental science, pharmacology, toxicology, etc....]

Memberships in Scientific Advisory Bodies/Committees/Panels (if any):

Current committee membership include:
the Scottish Science Advisory Council 2020-2023,
NatureScot Science advisory Committee, 2022-2025
DEFRA science advisory committee, 2022-2025
NERC advisory network 2021-
ICMS advisory board 2020-2023
INI advisory board, 2020-2023
NERC digital research infrastructure group, 2022-2025
Vistamilk advisory board, 2018-

Memberships in Learned Societies (if any):

Royal Statistical Society, American Statistical association, International Statistics Institute, Royal Society of Edinburgh

Memberships in Editorial Boards (if any):

Radiocarbon

List of Publications:

[Please indicate the type and total number of your publications. In addition, provide the bibliographic details for the 10 most representative, peer-reviewed articles which highlight the main areas of your scientific expertise.]

More than 200 peer reviewed publications

Miller, C., Magdalena, A.-M., Willows, R., Bowman, A., **Scott, E.**, Lee, D., Burgess, C., Pope, L., Pannullo, F. and Haggarty, R. (2014) Spatiotemporal statistical modelling of long-term change in river nutrient concentrations in England & Wales. *Science of the Total Environment*, 466-7, 914-923

Scott, E. M., Cocchi, D. and Gemmell, J. C. (2014) Defining a fit for purpose statistically reliable sustainability indicator. *Sustainability Accounting, Management and Policy Journal*, 5(3), 262-267

Huang, G., Lee, D. and **Scott, E. M.** (2018) Multivariate space-time modelling of multiple air pollutants and their health effects accounting for exposure uncertainty. *Statistics in Medicine*, 37(7), 1134-1148.

Franco-Villoria, M., **Scott, M.** and Hoey, T. (2019) Spatiotemporal modelling of hydrological return levels: A quantile regression approach. *Environmetrics*, 30(2)

Wilkie, C.J., Miller, C.A., **Scott, E.M.**, O'Donnell, R.A., Hunter, P.D., Spyarakos, E. and Tyler, A.N. (2019) Nonparametric statistical downscaling for the fusion of data of different spatiotemporal support. *Environmetrics*, 30(3)

Grau Andres, R., Gray, A., Davies, G. M., **Scott, E. M.** and Waldron, S. (2019) Burning increases post-fire carbon emissions in a heathland and a raised bog, but experimental manipulation of fire severity has no effect. *Journal of Environmental Management*, 233.

McGrane, S. J., **Scott E M**, et al. (2019) Scaling the nexus: towards integrated frameworks for analysing water, energy and food. *Geographical Journal*, 185(4), 419-431.

Gong, M., Miller, C., O'Donnell, R. and **Scott, M.** (2021) State space functional principal component analysis to identify spatiotemporal patterns in remote sensing lake water quality. *Stochastic Environmental Research and Risk Assessment*, 35(12), pp. 2521-2536.

Scott, E. M. (2022) Framing data science, analytics and statistics around the digital earth concept. *Environmetrics*, (doi: 10.1002/env.2732) (Early Online Publication)

Belmont Osuna, J. , Miller, C. , **Scott, M.** and Wilkie, C. (2022) A new statistical approach for identifying rare species under imperfect detection. *Diversity and Distributions*, 28(5), pp. 882-893. (doi: 10.1111/ddi.13495)

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