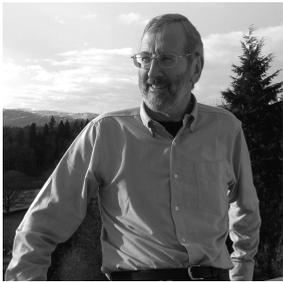


About the Editor-in-Chief



John A. Matthews is Emeritus Professor of Physical Geography at Swansea University, Wales, UK, where he was also Director of the Swansea Radiocarbon Dating Laboratory. After gaining a BSc and a PhD in Geography from King's

College, University of London, he worked at the Universities of Edinburgh and Cardiff before moving to Swansea in 1994. His main research interests are in Holocene environmental change (especially reconstructing glacier and climatic variations and their effects on the landscape), dating techniques, glacial and periglacial geomorphology, the geo-ecology of glacier forelands and the nature, history and philosophy of geography. In pursuit of these studies, he has led over 40 Jotunheimen Research Expeditions to southern Norway for which he received the Ness Award of the Royal Geographical Society in 1988 and an invitation to a State Banquet at Buckingham Palace in 2005 to meet the King and Queen of Norway and celebrate the 100th anniversary of

Norwegian independence. He has also carried out research in Finnish Lapland, on Mount Kenya, in the Austrian Alps and in the Brecon Beacons, Wales, and has been a Visiting Landsdowne Scholar at the University of Victoria, Canada. He received research funding from, amongst other sources, the UK Natural Environmental Research Council, Leverhulme Trust, European Science Foundation, National Geographic Society (USA) and Royal Geographical Society. He has supervised 22 successful PhD research students. His publications include over 150 contributions in scientific journals and his 9 books include *Quantitative and Statistical Approaches to Geography* (Pergamon Press, 1982); *The Ecology of Recently Deglaciated Terrain: A Geoecological Approach to Glacier Forelands and Primary Succession* (Cambridge University Press, 1992); *Solifluction and Climatic Variation During the Holocene* (Gustav Fischer, 1993); *Unifying Geography: Common Heritage, Shared Future* (Routledge, 2004); *Geography: A Very Short Introduction* (Oxford University Press, 2008); and *The SAGE Handbook of Environmental Change, 2 volumes* (Sage, 2012). He has been the Editor of *The Holocene* (the interdisciplinary journal focusing on recent environmental change) since its foundation in 1991.

About the Editorial Board

Christopher J. Barrow is now an Honorary Associate of Swansea University having retired as Reader in the Department of Geography in 2011. After graduating with a BSc from Hull University he worked for four years as a Contract Scientific Officer and palynologist with the British Antarctic Survey in South Georgia, the Falkland Islands and the United Kingdom. He was appointed to a two-year Lectureship in Biogeography at Hull University while completing his PhD in Geological Sciences at Birmingham University. This was followed, in 1978, by his appointment as a Lecturer in Natural Resources Management in the Centre for Development Studies at Swansea University, where he gained a Senior Lectureship and then a Readership. His research specialisms include land degradation, environmental management, sustainable resource use in tropical highlands, environment and social impact assessment and integrated river-basin management, and he has undertaken research and consultancy in Malaysia, Brazil and Morocco as well as the United Kingdom. Since the early 1980s, he has authored 10 books, including *Water Resources and Agricultural Development* (Longman, 1987); *Land Degradation* (Cambridge University Press, 1994); *Developing the Environment: Problems and Management* (Longman, 1995); *Environmental and Social Impact Assessment: An Introduction* (Hodder-Arnold, 1997); *Alternative Irrigation: The Promise of Runoff Agriculture* (Routledge, 1999); *Environmental Change and Human Development* (Arnold, 2003); and *Environmental Management for Sustainable Development* (Routledge, 2006). He has been Editor-in-Chief of the Wiley-Blackwell journal *Land Degradation and Development* since he founded the journal in 1989.

Doreen S. Boyd received a BSc degree in geography from the University of Wales, Swansea, in 1992 and a PhD degree from the University of Southampton in

1996. She is currently an Associate Professor in the School of Geography, University of Nottingham, having held Lectureships at Manchester, Kingston and Bournemouth Universities, UK. Between 2004 and 2006, she held the position of Senior Research Leader in Research and Innovation at the Ordnance Survey, Southampton. Her main research interests are in the remote sensing of terrestrial ecosystems, including tropical rainforests, temperate peatlands, boreal forests and mountain shrublands, in places across the range in latitude and longitude. Both passive and active systems are used for investigation, with a particular focus on novel and cutting-edge systems and processing approaches. She has numerous specialist publications in these fields. Her research work has attracted funding from learned societies and research councils in the United Kingdom and Europe, as well as from international space agencies. She serves on the Editorial Board of the *Journal of Maps* and the UK Natural Environment Research Council Airborne Research and Survey Facility Steering Committee.

Christopher J. Caseldine is Professor of Quaternary Environmental Change at the University of Exeter. He gained an MA and a PhD from the University of St Andrews and joined the Geography Department at the University of Exeter in 1976, where he became Head of Department and Head of the School of Geography, Archaeology and Earth Resources. He is currently based at the Tremough Campus of the University, in Cornwall. Between 2005 and 2010 he was Chief Editor of the *Journal of Quaternary Science*. He has been a Visiting Professor at the Universities of Munich and Innsbruck. His main interests relate to Late Quaternary environmental change in northwest Europe, where he has carried out research in a number of areas including Iceland, southern Norway, northwest Scotland, Ireland and southwest England. His research has involved studying both natural environmental

change, principally climatic change, and the influence of past human communities on the landscape, often in collaboration with archaeologists. He has published over 120 contributions in scientific journals and books and edited two books on environmental change in Iceland: *Environmental Change in Iceland: Past and Present* (Kluwer Academic, 1991); and *Iceland: Modern Processes and Past Environments* (Elsevier, 2005). His most recent publication has been a collaboration with a poet and students from the Tremough campus documenting a field class to Iceland titled *6 Days in Iceland* (Dropstone Press, 2012).

Katherine J. Ficken is Research Laboratory Manager and part-time tutor in the Department of Geography at Swansea University. After gaining a BSc in Geology at University of Wales, Aberystwyth, and an MSc and PhD in Organic Geochemistry from Newcastle University, she worked at the Royal Dutch Institute for Sea Research and Bristol University before moving to Swansea in 1999. Her main research interests focus on palaeoenvironmental and palaeoclimate reconstruction, using lipid and isotope stratigraphy, a specialist field in which she has numerous publications. The majority of her work is multidisciplinary, comparing results from molecular isotope analysis with those from pollen, diatom, grass cuticle and sedimentary data. She is primarily interested in lacustrine environments but also has considerable experience in lipid geochemistry and compound-specific isotope analyses of peat bogs, marine environments, geological samples and modern vegetation. Currently, she is part of the WISE 2 Network, a European Union-funded collaboration between the Universities of Swansea, Aberystwyth and Bangor that allows businesses instant access to the wealth of knowledge, research and facilities contained within these institutions.

John L. Innes received both his Bachelor's and PhD degrees in Geography from the University of Cambridge. After working as a Natural Environment Research Council Postdoctoral Fellow at University College Cardiff, he joined the UK Forestry Commission Research Division, and has worked in the field of forestry ever since. In 1992, he joined the Swiss Federal Institute for Forest, Snow and Landscape Research. There, he was responsible for developing a program to monitor forest ecosystem processes under anthropogenic stresses. In 1999, he was appointed as Forest Renewal BC Chair of Forest Management at the University of British Columbia in Vancouver, Canada, and in 2010, he assumed the position of Dean of the Faculty of Forestry. He holds an Honorary Professorial Fellowship at the University of Melbourne and adjunct professorial positions at three Chinese universities. He

has worked on a variety of subjects related to forest management and climate change, and his recent focus has been on the ways that forests, foresters and forest-dependent communities react to externally driven change. As such, he works at the borderline between natural and social sciences and is actively involved in research projects in British Columbia, Yukon Territory, Australia, South Africa, India, Peru and China. He is also co-ordinator of the Task Force on 'Resources for the Future' of the International Union of Forest Research Organizations, Associate Editor of the *Journal of Environmental Management* and *Environmental Conservation* and sits on the Editorial Advisory Board of a number of other journals. He has published numerous papers and his books include *Biomass Burning and Its Inter-Relationships With the Climate System* (Springer, 2000), *Forest Dynamics in Heavily Polluted Regions* (CABI Publishing, 2000), *Ozone and Broad-Leaved Species: A Guide to the Identification of Ozone-Induced Foliar Injury* (Haupt, 2001) and *Sustainable Forest Management: From Principles to Practice* (Routledge, in press).

Stephen Nortcliff is Emeritus Professor of Soil Science at the University of Reading who has researched and taught across a range of soil and soil-related topics with a strong emphasis on soils and soil management in the tropics and most recently the use of waste-derived organic materials as soil amendments. He gained a BA in Geography from the University of Bristol and a PhD from the University of East Anglia. He was a Lecturer in the Geography Department at Kings College London, before moving to the Department of Soil Science at Reading. He was Head of Department in Soil Science on a number of occasions and later became Head of the School of Human and Environmental Sciences (Archaeology, Geography and Soil Science). In addition, he is Adjunct Professor of Soil Science at Clemson University, USA, and from 2002 to 2010 was Secretary General of the International Union of Soil Sciences representing some 50,000 soil scientists globally. His work in the tropics has involved research principally in Brazil, Colombia, Kenya, Tanzania, the Philippines and Thailand. Research on organic soil amendments has included the use of plant residues, composts, sewage sludge and anaerobic digestates. In recent years, he has been actively involved in the development in soil protection strategies for England and Europe and from 2002 to 2006 was Chair of the European Commission's Working Group on Soil Organic Matter for Soil Protection. He has published well over 100 publications in scientific journals and books and, with Peter Gregory, has edited *Soil Conditions and Plant Growth*, 12th edition (Wiley-Blackwell, 2013).

Geraint Owen is a Senior Lecturer in the Department of Geography at Swansea University. He gained his BSc in Geological Sciences at Leeds University and his PhD in sedimentology at the University of Reading before joining the Department of Geology at Swansea University as a lecturer in 1984 and the Department of Geography in 1990. He received a Distinguished Teaching Award from Swansea University in 2008. His main research interest is the origin of soft-sediment deformation structures in sands and sandstones, which has included shaking-table experimental work and fieldwork in the United Kingdom, Italy and the United States. Additional research interests include Holocene environmental change, geomorphology and sedimentology in Jotunheimen, southern Norway, including field studies on physical and chemical weathering, avalanche-impact landforms and alluvial and colluvial fans. He undertakes extensive outreach activities including lectures and field trips for interested public groups. He is a past Secretary and Chairperson of the Earth Science Teachers' Association and is active in the Geologists' Association South Wales Group, of which he is an Honorary Member and President from 2012 to 2014.

Jennifer Pike is a Senior Lecturer in Earth and Ocean Sciences at Cardiff University. She gained her first degree in Geology from the University of Birmingham followed by a PhD from the School of Ocean and Earth Sciences, University of Southampton. Her research focuses on understanding seasonal-scale changes in oceanic environments through geological time by using a combination of sedimentology, palaeoecology and geochemistry. Her recent research projects include using seasonal changes in fossil marine diatom assemblages to investigate Holocene ice-ocean-climate interactions around the Antarctic continental margin and also using the oxygen isotope ratios recorded in the silica skeletons of marine diatoms to investigate the Holocene relationship between low latitude climate patterns and glacial discharge along the west Antarctic Peninsula. Although concentrating on the high southern latitudes at present, she has been involved in research projects that range from the Arctic Ocean to the Mediterranean Sea, Black Sea and the Gulf of California. Before taking up her current lecturing position at Cardiff University, she held a UK Ocean Drilling Program Postdoctoral Fellowship at the National Oceanography Centre, Southampton. Her publications include research articles, review articles and book chapters, and she is currently on the Editorial Board of the open-access journal *ISRN Oceanography* and is a Scientific Advisor to *Revue de Micropaléontologie*.

Richard A. Shakesby is a Reader in the Department of Geography at Swansea University. After gaining a

BA in Geography from Portsmouth Polytechnic and a PhD in glacial geomorphology from Edinburgh University, he worked at Hereford College of Education before moving to Swansea in 1978. His interests range from glacial and periglacial geomorphology and Quaternary environmental change to human impact on landforms and geomorphological processes with a particular emphasis on the causes and consequences of soil erosion. He has served as a Council Member of the European Society for Soil Conservation and as an Executive Member of the Quaternary Research Association. He has been a Visiting Lecturer at Khartoum and Zimbabwe Universities and a principal investigator on four European Union-funded projects since 1988 concerned with land degradation and soil conservation issues in Portugal. These collaborative projects have considered the soil erosion impacts of wildfire, possible ways of mitigating post-wildfire erosion, assessment of the possible soil conservational benefits of prescribed fire as a wildfire limitation measure and identification of suitable strategies for combating desertification. He has also conducted research in the United Kingdom, Norway, Sweden, Austria, Sudan, Zimbabwe and Australia, which has been funded from various sources including the British Council, the UK Natural Environmental Research Council and the Quaternary Research Association. He is the author of over 90 published contributions in scientific journals and books.

Rory P.D. Walsh is a Professor in Physical Geography at Swansea University and, since 2000, has been the Research Co-ordinator of the Royal Society South-East Asia Rain Forest Research Programme, based at Danum Valley in Sabah (Malaysian Borneo), where he has been researching since 1990. After gaining an MA and a PhD in Geography at St John's College, Cambridge, he worked for a year as Temporary Lecturer in Geography at Durham University before moving to a permanent lectureship at Swansea, where he was Head of Department from 2005 to 2009. His research interests lie in the fields of hydrology and geomorphology, particularly of the tropics and Mediterranean. His main research foci have included drainage networks and hydrogeomorphological processes in the humid tropics; the use of sediment fingerprinting and dating techniques to reconstruct erosional history; recent and historical changes in rainfall, tropical cyclones and droughts in the tropics and their hydrological, geomorphological and ecological impacts; the influence of forest fires and land management on Mediterranean hydrology (notably soil-water repellency) and soil erosion; and acid waters and heavy metal river pollution problems in the United Kingdom. In pursuit of these interests, he has carried out field research in the Caribbean, Sudan, Sarawak

and Sabah, Thailand, Indonesia, Vietnam and Portugal. He was a member of the Royal Geographical Society Expedition to Mulu (Sarawak) in 1977–1978, a Visiting Lecturer at the University of Khartoum on several occasions over the period 1982–1990 and a Visiting Scholar at the University of Würzburg in 1990. His sources of research funding include major grants from the Natural Environment Research Council, the Royal Society, the European Union, Shell, HSBC, the Sime Darby Foundation and the Earthwatch Institute. He received the Back Award from the Royal Geographical Society in 1996 for contributions to tropical hydrology and geomorphology. He has been the supervisor of 22 successful PhD students. His publications include over 100 contributions to scientific journals and books, including major contributions to *The Tropical Rain Forest* (Cambridge University Press, 1996) and *Geomorphology and Global Environmental Change* (Cambridge University Press, 2009). He was co-editor of a Special Issue in 2011 of *Philosophical Transactions of the Royal Society B* on The future of tropical rainforests in a changing climate and landscape.

Dennis A. Wheeler is Reader in Geography at the University of Sunderland. He gained his BSc and PhD degrees from the University of Hull before moving on to the University of Keele. He has been at Sunderland

since 1980 during which time he has developed an interest in historical and regional climatology and, in particular, in the use of old documents, especially Royal Navy ships' logbooks, from as far back as the late seventeenth century to reconstruct synoptic-scale circulation patterns and past climates. He also investigates the influence of weather on naval battles in the age of sail and has written extensively on the Battle of Trafalgar. His other specialisms include Iberian climate studies working with colleagues at the Universities of Barcelona and Madrid. He has done much to promote the use of historical documents in climate-related research for which he was awarded the Royal Meteorological Society's Gordon Manley and Jehudi Neumann Prizes. In addition, he has taken a lead role in a number of major European Union– and United Kingdom–funded research projects on climatic change. His publications include over 100 research papers and his books include *Regional Climates of the British Isles* (Routledge, 1997) and *Statistical Techniques in Geographical Analysis*, 3rd edition (David Fulton Publishers, 2004). He has served on the Editorial Board of a number of journals, including *Weather* and *Climates of the Past*, and he is active in the Royal Meteorological Society promoting public understanding of climatic issues and as chairman of the North East Centre. He was, for a while, a TV weather man and continues to make regular TV and radio presentations on the theme of weather and climate.

Editorial Division of Responsibilities

EDITOR-IN-CHIEF

John A. Matthews

Holocene environmental change; techniques, methodology and philosophy of environmental change; palaeoclimatology; strategy, integration, cross-referencing, final editing, additional references and index

EDITORIAL BOARD

Christopher J. Barrow

Human dimensions of environmental change: adaptation, vulnerability and mitigation; sustainability and development; conservation, management and policy

Doreen S. Boyd

Earth observation; remote sensing; geographical information systems; environmental monitoring and environmental modelling

Christopher J. Caseldine

Quaternary environmental change; dating techniques and palaeoenvironmental reconstruction; Holocene human impacts and environmental archaeology

Katherine J. Ficken

Biological aspects of environmental change on long timescales; biogeochemistry; evolution and biogeography; Quaternary palaeoecology and palaeolimnology

John L. Innes

Ecology; biological aspects of recent environmental change; contemporary human impacts on ecosystems and the biosphere; biological conservation

Stephen Nortcliff

Pedology; soils, palaeosols and environmental change; soil conservation and management; contaminated land and land restoration

Geraint Owen

Geology and geophysics; environmental change in the geological record; plate tectonics; environmental change on long (geological) timescales in terrestrial environments; geological conservation

Jennifer Pike

Marine geology, oceanography and palaeoceanography; environmental change in the oceans—physical, chemical and biological aspects; marine conservation and human impacts

Richard A. Shakesby

Geomorphological change in Mediterranean, temperate and cold environments; coastal environmental change; human impacts on landforms and Earth-surface processes

Rory P.D. Walsh

Hydrology and palaeohydrology; fluvial geomorphology; human impacts on the hydrosphere; geomorphology and environmental change in tropical and subtropical environments

Dennis A. Wheeler

Climatic change; meteorology and climatology; historical climatology; contemporary and future human impacts on the atmosphere and climate