

**DISCOVER
WITH
PLYMOUTH
UNIVERSITY**



**Centre for Research in Environment
and Society**

Research Report 2017

Book chapters

Bailey I, Jackson Inderberg TH 2017 Australia: Domestic politics, diffusion and emissions trading design as a technical and political project. In *The Evolution of Carbon Markets: Design and Diffusion*. 124-144

Box JE, Sharp M, Aðalgeirsdóttir, G, Ananicheva M, Anderson ML, Carr R, **Clason CC**, Colgan WT, Copland L, Glazovsky A, Hubbard A, Kjeldsen KK, Mernild S, Moholdt G, Moon T, Wagner T, Wouters B, Van Wychen W 2017 Changes to Arctic land ice. In *Snow, Water, Ice and Permafrost in the Arctic (SWIPA) 2017*. Oslo, Norway, Arctic Monitoring and Assessment Programme (AMAP) 137-168

Caprotti F, Cowley R, **Bailey I**, Joss S, Sengers F, Raven R, Späth P, Tan-Mullins, Chesmehzangi A, Xie L, 2017 Smart eco-city development in Europe and China: opportunities, drivers and challenges, University of Exeter, ISBN: 978-0-9955574-6-8

Caprotti, F, **Harmer NA** 2017 Spatialising urban sustainability transitions: eco-cities, multilevel perspectives and the political ecology of scale in the Bohai Rim, China. In Frantzeskaki N, Castan-Broto E, Coenen L, Loorbach D (eds) *Urban Sustainability Transitions*. Routledge

Harvey, A.M., Stokes, M., **Mather, A.**, Whitfield, E. 2017. Spatial characteristics of the Pliocene to modern alluvial fan successions in the uplifted sedimentary basins of Almería, SE Spain: review and regional synthesis. Ventra, D. & Clarke, L. E. (eds) *Geology and Geomorphology of Alluvial and Fluvial Fans: Terrestrial and Planetary Perspectives*. Geological Society, London, Special Publications, 440, <http://doi.org/10.1144/SP440.5>

Jackson Inderberg, TH, **Bailey I**, **Harmer, N** 2017 Adopting and designing New Zealand's emissions trading scheme. In *The Evolution of Carbon Markets: Design and Diffusion*. 105-123

Latuf de Oliveira Sanchez R, **Essex SJ** 2017 Architecture and Urban Design: The Shaping of Rio 2016 Olympic Legacies. In Zimbalist A (ed.) *Rio 2016: Olympic myths, hard realities*. Washington DC, Brookings Institution Press, 97-120

Mather AE, Stokes M 2017 Bedrock structural control on catchment scale connectivity and alluvial fan processes, High Atlas Mountains, Morocco. In Ventra D, Clarke LE (eds) *Geology and Geomorphology of Alluvial and Fluvial Fans: Terrestrial and Planetary Perspectives*. The Geological Society of London, Special Publications, 440

Rech MF 2017 Children, Young People and the Everyday Geopolitics of British Military Recruitment. In Benwell M, Hopkins P (eds) *Children, Young People and Critical Geopolitics*. Taylor & Francis

Refereed journal articles

Akter, S., **Rahman, S.** 2017 Investigating multiple domains of Household Livelihood Security: Insights from urban slums in Bangladesh. *Journal of Poverty* 21, 289–309.

Anik A, **Rahman S**, Sarker J 2017 Agricultural Productivity Growth and the Role of Capital in South Asia (1980–2013) *Sustainability* 9, 470.

Anik AR, Salam MA, **Rahman S** 2017 Drivers of Production and Efficiency of Onion Cultivation in Bangladesh. *Bulgarian Journal of Agricultural Science* 23, 34–41.

Azad, M.A.S., **Rahman, S.** 2017 Factors influencing adoption, productivity and efficiency of hybrid rice in Bangladesh. *Journal of Developing Areas* 51, 257–273.

Bailey I 2017 Spatializing climate justice: Justice claim-making and carbon-pricing controversies in Australia, *Annals of the American Association of Geographers*, 107, 1128-1143.

Bailey I 2017 Beyond Uneconomic Growth: Economics, Equity and the Ecological Predicament. *Environmental Values* 26, 661-662

Bevan A, Colledge S, Fuller D, **Fyfe R**, Shennan S, Stevens C 2017 Holocene fluctuations in human population demonstrate repeated links to food production and climate. *Proceedings of the National Academy of Sciences of the United States of America* 114, E10524-10531

Brown AG, Tooth S, Bullard JE, Thomas DSG, Chiverrell RC, Plater AJ, Murton J, Thorndycraft VR, Tarolli P, Rose J, Wainwright J, **Downs P**, Aalto R 2017 The geomorphology of the Anthropocene: emergence, status and implications. *Earth Surface Processes and Landforms* 42, 71-90

Brown G, **Essex S**, Assaker G, Smith A 2017 Event satisfaction and behavioural intentions: examining the impact of the London 2012 Olympic Games on participation in sport. *European Sport Management Quarterly* 17, 1-18

Chojnacki M, **Telfer MW** 2017 Editorial Introduction: Fourth Planetary Dunes Workshop. *Special Issue Aeolian Research* 26, 1-3

Cordier S, Briant B, Bridgland D, Herget J, Maddy D, **Mather A**, Vandenberghe J 2017 The Fluvial Archives Group: 20 years of research connecting fluvial geomorphology and palaeoenvironments. *Quaternary Science Reviews* 166, 1-9

Dean, J.R., Jones, M.D., Leng, M.J., Metcalfe, S.E., Sloane, H.J., Eastwood, W.J. and **Roberts, C.N.** 2017 Seasonality of Holocene hydroclimate in the Eastern Mediterranean reconstructed using the oxygen isotope composition of carbonates and diatoms from Lake Nar, central Turkey. *The Holocene* DOI: 10.1177/0959683617721326

Demoulin, A, **Mather A**, Whittaker A. 2017. Fluvial archives, a valuable record of vertical crustal deformation. *Quaternary Science Reviews* 166, 10-37

Edwards KJ, **Fyfe RM**, Jackson ST 2017 The first 100 years of pollen analysis. *Nature Plants* (2055-0278) 3

Edwards R, Gehrels WR, Brooks A, **Fyfe R**, Pullen K, Kuchar J, Craven K 2017 Resolving discrepancies between field and modelled relative sea-level data: lessons from western Ireland. *Journal of Quaternary Science*

Essex S, Yarwood RB 2017 Changing Places: the armed forces, post-military space and urban change in Plymouth, UK. *Geography* 102, 122-132

Evenstar LA, **Mather AE**, Hartley AJ, Stuart FM, Sparks RSJ, Cooper FJ 2017 Geomorphology on geologic timescales: Evolution of the late Cenozoic Pacific paleosurface in Northern Chile and Southern Peru. *Earth-Science Reviews* 171, 1-27

Ferreira CSS, Walsh RPD, **Blake WH**, Kikuchi R, Ferreira AJD 2017 Temporal Dynamics of Sediment Sources in an Urbanizing Mediterranean Catchment. *Land Degradation & Development*

Gholami H, **Telfer MW, Blake WH**, Fathabadi A 2017 Aeolian sediment fingerprinting using a Bayesian mixing model. *Earth Surface Processes and Landforms*

Greenwood SL, **Clason CC**, Nyberg J, Jakobsson M, Holmlund P 2017 The Bothnian Sea ice stream: early Holocene retreat dynamics of the south-central Fennoscandian Ice Sheet, *Boreas*, 46, 346-362

Gudlaugsson E, Humbert A, Andreassen K, **Clason CC**, Kleiner T, Beyer S 2017 Eurasian ice-sheet dynamics and sensitivity to subglacial hydrology. *Journal of Glaciology*

Harmer NA 2017 Crude geopolitics: territory and governance in post-peak oil imaginaries. *Territory, Politics, Governance*

Hesse PP, **Telfer MW**, Farebrother W 2017 Complexity confers stability: Climate variability, vegetation response and sand transport on longitudinal sand dunes in Australia's deserts. *Aeolian Research* 25, 45-61

Holton, M. 2017. A place for sharing: The emotional geographies of peer-sharing in UK University halls of residences. *Emotion, Space and Society*, 22, 4-12.

Holton M 2017 "It was amazing to see our projects come to life! Developing affective learning during geography fieldwork through tropophilia. *Journal of Geography in Higher Education* 41, 1-15

Holton MJW 2017 Traditional or Non-traditional Students?: Incorporating UK Students' Living Arrangements into Decisions about Going to University. *Journal of further and higher education*

Holton MJW, Finn K 2017 Being-in-motion: the everyday (gendered and classed) embodied mobilities for UK university students who commute. *Mobilities*

Inderberg THJ, **Bailey I**, **Harmer N** 2017 Designing New Zealand's Emissions Trading Scheme. *Global Environmental Politics* 17, 31-50

Iurian AR, Millward GE, Sima O, **Taylor A**, **Blake W** 2017 Self-attenuation corrections for Pb-210 in gamma-ray spectrometry using well and coaxial HPGe detectors. *Applied Radiation and Isotopes*

Johnson R, **Shaw J**, Berding J, Gather M, Rebstock M 2017 European national government approaches to older people's transport system needs. *Transport Policy* 59, 17-27

Kaplan JO, Krumhardt KM, Gaillard M-J, Sugita S, Trondman A-K, **Fyfe RM**, Marquer L, Mazier F, Nielsen AB 2017 Constraining the Deforestation History of Europe: Evaluation of Historical Land Use Scenarios with Pollen-Based Land Cover Reconstructions. *Land* 6, 91

Kazal MMH, **Rahman S**, Hossain MZ 2017 Poverty profiles and coping strategies of the haor (ox-bow lake) households in Bangladesh. *Journal of Poverty Alleviation and International Development* 8, 167-191

Lacey JP, Evrard O, Smith HG, **Blake WH**, Olley JM, Minella JPG, Owens PN 2017 The challenges and opportunities of addressing particle size effects in sediment source fingerprinting: A review. *Earth-Science Reviews* 169, 85-103

Langford H, Boreham S, Briant RM, Coope GR, Horne DG, Penkman KEH, Schreve DC, **Whitehouse NJ**, Whittaker JE 2017 Evidence for the early onset of the Ipswichian thermal optimum: palaeoecology of Last Interglacial deposits at Whittlesey, eastern England. *Journal of the Geological Society*

Latuf de Oliveira Sanchez R, **Essex SJ** 2017 The challenge of urban design in securing post-event legacies of Olympic Parks. *Journal of Urban Design*

Liu J, **Rahman S**, Sriboonchitta S, Wiboonpongse A 2017 Enhancing Productivity and Resource Conservation by Eliminating Inefficiency of Thai Rice Farmers: A Zero Inefficiency Stochastic Frontier Approach. *Sustainability* 9, 770

Marquer L, Gaillard M-J, Sugita S, Poska A, Trondman A-K, Mazier F, Nielsen AB, **Fyfe RM**, Jansson AM, Smith B, Kaplan JO, Alenius T, Birks HJB, Bjune AE, Christiansen J, Dodson J, Edwards KJ, Giesecke T, Herzschuh U, Kangur M, Koff T, Lataowa M, Lechterbeck J, Olofsson J, Seppa H 2017 Quantifying the effects of land use and climate on Holocene vegetation in Europe. *Quaternary Science Reviews* 171, 20-37

Masselink G, Hanley ME, Halwyn AC, **Blake W**, Kingston K, **Newton T**, Williams M 2017 Evaluation of salt marsh restoration by means of self-regulating tidal gate. Avon estuary, South Devon, UK. *Ecological Engineering* 106, 174-190

- Mather, A.**, Stokes, M., Whitfield, E. 2017. River terraces and alluvial fans: The case for an integrated Quaternary fluvial archive. *Quaternary Science Reviews* 166, 74-90
- Mills, SC**, T.T.Barrows, **M.W.Telfer** and L.K.Fifield 2017 The cold climate geomorphology of the Eastern Cape Drakensberg: A reevaluation of past climatic conditions during the last glacial cycle in Southern Africa. *Geomorphology* 278, 184-194
- Penney R, **Wilson G**, Rodwell L 2017 Managing sino-ghanaiian fishery relations: A political ecology approach. *Marine Policy* 79, 46-53
- Rahman S** 2017 Climate, Agroecology and Socio-Economic Determinants of Food Availability from Agriculture in Bangladesh, (1948-2008). *Sustainability* 9, 354
- Rahman S** 2017 Factors Influencing Household Income in Poor Urban Slum Settlements in Bangladesh. *Journal of Poverty Alleviation and International Development* 8, 55-80
- Rahman S**, Kazal MMH, Begum IA, Alam MJ 2017 Exploring the future potential of jute in Bangladesh. *Agriculture* 7, 96
- Rech MF** 2017 Distant wars visible: the ambivalence of witnessing. *Social & Cultural Geography* 18, 443-444
- Sabiha N-E, Salim R, **Rahman S** 2017 Eco-efficiency of high-yielding variety rice cultivation after accounting for on-farm environmental damage as an undesirable output: an empirical analysis from Bangladesh. *Australian Journal of Agricultural and Resource Economics* 61, 247-264
- Schulting, R.J.; Sheridan, A.; McClatchie, M.; McLaughlin, R.; Barratt, P. and **Whitehouse, N.J.** 2017. Radiocarbon dating of a multi-phase passage tomb on Baltinglass Hill, Co. Wicklow. *Proceedings of the Prehistoric Society* <https://doi.org/10.1017/ppr.2017.1>
- Simpson P** 2017 Refrains for moving bodies: experience and experiment in affective spaces. *Social & Cultural Geography* 1-2
- Simpson P** 2017 Spacing the subject: Thinking subjectivity after non-representational theory. *Geography Compass* 11
- Soar PJ, **Downs PW** 2017 Estimating bedload transport rates in a gravel-bed river using seismic impact plates: Model development and application. *Environmental Modelling & Software* 90,182-200
- Stokes M., **Mather, A**, Belfoul MA, Faik F, Bouzid, S, Geach M, Cunha P, Boulton S, Thiel C. 2017. Controls on dryland mountain landscape development along the NW Saharan desert margin: insights from Quaternary river terrace sequences (Dades River, south-central High Atlas, Morocco). *Quaternary Science Reviews* 166. 363-379

Telfer MW, Hesse PP, Perez-Fernandez M, Bailey RM, Bajkan S, Lancaster N 2017 Morphodynamics, boundary conditions and pattern evolution within a vegetated linear dunefield. *Geomorphology* 290, 85-100

Upadhayay HR, Bodé, S, Griepentrog M, Huygens D, Bajracharya RM, **Blake WH**, Dercon G, Mabit L, Gibbs M, Semmens BX, Stock BC, Cornelis W, Boeckx P 2017 Methodological perspectives on the application of compound-specific stable isotope fingerprinting for sediment source apportionment. *Journal of Soils and Sediments* 17, 1537-1553

van Bellen S, Mauquoy D, Payne RJ, Roland TP, Hughes PDM, **Daley TJ**, Loader NJ, Street-Perrott FA, Rice EM, Pancotto VA 2017 An alternative approach to transfer functions? Testing the performance of a functional trait-based model for testate amoebae. *Palaeogeography, Palaeoclimatology, Palaeoecology* 468, 173-183

Van Looy K, Tormos T, Souchon Y, **Gilvear D** 2017 Analyzing riparian zone ecosystem services bundles to instruct river management. *International Journal of Biodiversity Science, Ecosystem Services & Management* 13, 330-341

Wilson GA, Kelly CL, Briassoulis H, Ferrara A, Quaranta G, Salvia R, Detsis V, Curfs M, Cerda A, El-Aich A, Liu H, Kosmas C, Alados CL, Imeson A, Landgrebe-Trinkunaite R, Salvati L, Naumann S, Danwen H, Iosifides T, Kizos T, Mancino G, Noia A, Jiang M, Zhang P 2017 Social Memory and the Resilience of Communities Affected by Land Degradation. *Land Degradation & Development* 28, 383-400

Yarwood, R (2017) Changing places, changing boundaries *Geography* 102, 114-115

New External Research grants and contracts awarded in 2017 (>£2k)

Will Blake, Geoff Wilson, Neil Roberts, Dave Gilvear, Claire Kelly and Maarten Wynants and colleagues from the Nelson Mandela African Institution for Science and Technology in Tanzania; £124,000 from NERC under the GCRF resilience initiative. This follow-on project is linked Jali Ardhi [Care for the Land] project: Realising land management change in degraded Maasai grazing lands.

Caroline Clason: : €2,926 from INTERACT Transnational Access to support fieldwork in Sweden on “Glacier Recession as a Source of Environmental Pollutants”.

Tim Daley (PI), Ralph Fyfe and Sabine Lengger (Co-I's): £30,000 from South West Water - October 2017, duration 3 years. Quantifying spatial variability in carbon service delivery.

Peter Downs and Dave Gilvear; £12,430 via the Westcountry Rivers Trust to monitor for Wessex Water the effectiveness of gravel augmentation in rivers downstream of dams using RFID tags and seismic impacts plates.

Ralph Fyfe, £10,449 Sittaford Stone Circle post-excavation analysis funded by Dartmoor National Park Authority

Ralph Fyfe, £4,187 Codsand Moors, Exmoor. Analysis funded by Exmoor National Park Authority.

Sanzid Rahman: £6,160 from the Seale-Hayne Trust for research into the impact of women's empowerment on agricultural productivity and efficiency in Bangladesh.

Paul Simpson EUR 85,000 as a Co-I in collaboration with colleagues in Cergy Pontoise, Birmingham and Heidelberg. The project is titled 'Living in the City with Terror: What are the Effects of Different Terrorism Events on Urban Environments / Ambiances?' and is funded by the Initiative d'excellence Paris/Seine.

Nicki Whitehouse, £2,900 from the Carlsberg Foundation to support a sabbatical visit to Denmark; 8000 US from PAGES to support Europe 6000 BP workshop in May 2018 (awarded Dec 2017)

Conferences organised in 2017

Peter Downs: Thinking Outside of the Reach: how new science might improve the sustainability of river management – Santa Clara River Trustee Council \$2,500. Funding to organize and chair a two-day academic-stakeholder workshop on prospects for sustainable river management in coastal Mediterranean ecosystems. Held in Santa Paula, California. July 12-13, 2017: supplementary award stemming from earlier EURIAS Fellowship.

Cheng, Y., and **Holton, M.** Theorizing Citizenship in Higher Education: Students as Agents for Change? AAG Annual Meeting, Boston, Mass, April 2017.

Neil Roberts, Ralph Fyfe and Jessie Woodbridge: 3 day workshop meeting organised held in Santuari de Lluc, Mallorca, September, 2017, linked to Leverhulme funded "Changing the Face of the Mediterranean" project, and involving palynologists, archaeologists, geomorphologists, etc.

Nicki Whitehouse: May 2017: PAGES OSM Session, Zaragoza, Spain: *Do species move, adapt or die? Exploring past biodiversity, ecological change and community dynamics in the fossil record* (Conveners: Nicki Whitehouse, Helen Roe, Donatella Magri, Althea Davies, M. Jane Bunting)

Positions on national and international bodies (Editorial boards, committees, etc.), visiting fellowships, etc

Bailey, I. editorial board of *Environment and Planning C*, on editorial board *Geography Compass* UK Management Committee Representative, European Cooperation in Science and Technology, Innovations in Climate Governance

Balch, C. member of DCLG Academic Roundtable on Neighbourhood Planning

Blake, W. sub editor for the *International Journal of Wildland Fire*, Board Member, International Association for Sediment Water Science, Agreement Holder within IAEA Coordinated Research Programme on Land Degradation

Brayshay, M. editor of the *Transactions of the Devonshire Association*

Downs, P. Initial Assessor for the RGS-IBG Chartered Geographer award. Appointed by the Environment Agency as a Conservation Lead to the South West Regional Flood and Coastal Committee (2017-2021).

Essex, S. Royal Town Planning Institute Assessor for Assessment of Professional Competence for Chartered Membership.

Gilvear D.J. Editorial board - *River Research and Applications*; President of the International Society of River Science

Holton, M. Geographies of Youth, Children and Families Research Group (RGS-IBG) Social Media Officer.

Mather, A. editorial board of *Geosciences* and *Iberian Geology*; member Fluvial Archives Group (FLAG) Women in Science Showcase Grant as Visiting Academic, Science Faculty, Monash University, Melbourne Australia.

Rahman, S. editorial board of *International Journal of Agricultural Management*, editorial board of *Singapore Journal of Tropical Geography*, editorial board of *Sage Open*, and editorial board of *Agriculture*; Guest Editor of Special Issue 'Sustainable Agriculture and Development', *Sustainability*, and Guest Editor of Special Issue 'Energy and Agriculture', *Agriculture*. adjunct Professor of Economics, Chiang Mai University, Thailand; University Associate at School of Economics and Finance, Curtin University, Perth, Australia

Roberts, N. Editor, *Quaternary Science Reviews*, editorial board for the Holocene and for Alpine and Mediterranean Quaternary

Shaw, J. International Editorial Board of *Journal of Transport Geography*; International Editorial Board of *Travel Behaviour and Society*; member of the Great Western Railway Stakeholder Advisory Board, Chair of the International Scientific Advisory Board of econex Verkehrsconsult

Simpson, P. Chair for the RGS-IBG History and Philosophy of Geography Research Group; Member of the 'International Ambiances Network' Steering Committee.

Telfer, M., Associate Editor Aeolian Research. DFG review Panel member.

Whitehouse, N. AHRC Peer Review College and Panel member; INQUA President of Humans & Biosphere Commission and Executive Committee; Editorial Board, *Quaternary International*; *Journal of Archaeological Science: Reports*; *Alpine and Mediterranean Quaternary (AMQ)*; Committee member, Association for Environmental Archaeology; INQUA Dublin 2019 Congress' Scientific Committee; PAGES Land6K Global-land Use co-coordinator.

Wilson, G. editorial board of *Journal of Rural Studies* and *Land Degradation and Development*; Section editor (Rural Geography/Environmental Geography) for *Encyclopedia of Human Geography* (Wiley)

Yarwood, R. editor, *Geography*

External examinations for research degrees and postgraduate taught programmes at Masters Level or equivalent at other institutions

Ian Bailey, PhD examiner for Ross Gillard, (University of Leeds): External examiner for Sustainable Development Masters programmes at Exeter University

Mark Holton, examiner of PhD Thesis, Grace Sykes “*The University Bubble: undergraduate students’ perceptions and experiences of risk*” (University of Leicester, Jan 2017).

Sanzidur Rahman, PhD examiner for Robertson Richards Bisani Khataza, University of Western Australia, Perth, Australia.

Jon Shaw, EngD examiner for Simon Dale (Loughborough University)

Paul Simpson, PhD examiner for Nina Williams (School of Geographical Sciences, University of Bristol)

Neil Roberts, PhD examiner for Julien Azuara (Natural History Museum, Paris)

Matt Telfer PhD examiner for Yajun Li (RHUL)

Nicki Whitehouse: External MSc Examiner for *Environmental Archaeology*, University of Reading

Richard Yarwood, PhD examiner for William Andrews (Aberystwyth, 2017)

Research Degrees awarded (2017)

Gina Kallis. PhD 'An Intergenerational Perspective on Migrant Senses of Identity and Belonging: the case of Greek-Cypriot Families in South-West England' (Richard Yarwood, DoS)

Tom Newton, PhD “Holocene sea level changes in the Falkland Islands”; T Daley (DoS)

Francis Rowney, PhD “Ecology and climates of early Middle Pleistocene interglacials in Britain”; N Whitehouse (DoS)

Fiona Thompson, PhD, “‘Changing Flood Frequency in Scotland: Implications for Channel Geomorphology, Ecology and Management’, D Gilvear (DoS)