

CONFERENCE PROGRAMME

Tuesday 27 September 2016	
08.30	Registration & tea, coffee
09.15	Welcome Mike Ellis, BGS & Garry Pender, Heriot-Watt University
Session 1: Modern and Ancient Rivers <i>Chairs: Hugh Sinclair & Jim Best</i>	
09.30	KEYNOTE: Organization and Reorganization of Drainage and Sediment Routing Through Time: Examples from the Mississippi System, Geologic Past to Near Future Mike Blum, University of Kansas
10.10	Cambrian rivers and floodplains: the significance of microbial cementation, groundwater and Aeolian sediment transport Arjan Reesink, University of Southampton
10.30	Using outcrop, subsurface and modern day analogues to predict basin-scale alluvial architecture Adrian Hartley, University of Aberdeen
10.50	Tea & coffee break
11.20	Understanding fluid flow at basin scale in fluvial reservoirs Amanda Owen, University of Aberdeen
11.40	The complex shapes of fluvial meanders and the distribution of heterogeneity in point-bar deposits Catherine Russell, University of Leeds
12.00	A sedimentological analysis of a 3D point bar outcrop in a Jurassic distributive fluvial system outcrop, South West USA Alistair Swan, University of Aberdeen
12.20	Brief poster presentations <ul style="list-style-type: none"> i) The role of lateral and vertical geological heterogeneity in controlling floodplain groundwater dynamics and groundwater-surface water interaction: an example of an upland floodplain in Scotland, UK Brighid ó Dochartaigh, BGS (to be presented by Nicole Archer, BGS) ii) Stratigraphy and Provenance of the Lower Old Red Sandstone of the Midland Valley Basin, Scotland Zoe McKellar, University of Aberdeen iii) A geological framework for urban sustainability on the banks of the River Ganges: Varanasi, Uttar Pradesh Andrew Finlayson, BGS iv) Groundwater – meltwater interaction in a proglacial aquifer in an active glacial catchment in SE Iceland Brighid ó Dochartaigh, BGS (to be presented by Andrew Finlayson)
12.40	Lunch & posters

Session 2: Floods and Flood Control
Chairs: Alistair Borthwick & Gary Pender

13.30	The influence of flow sequence and event clusters on fluvial flood hazard: a morphodynamic approach Heather Haynes, Heriot-Watt University
13.50	Geological controls on hillslope to reservoir sediment connectivity: An applied perspective Katie Whitbread, BGS
14.10	Multi-source flood risk assessment based on joint probability analysis in coastal cities Xiaodong Ming, Newcastle University
14.30	Tea & coffee break & posters
15.30	Is China's fifth-largest inland lake to dry-up? Incorporated hydrological and satellite-based methods for forecasting Hulun Lake water levels Zuansi Cai, Edinburgh Napier University
15.50	NERC RRR Ideas Application Discussion – New deadline 16th May 2017
16.10	NERC RRR Ideas Application Discussion
16.30	Posters and drinks reception

Wednesday 28 September 2016

08.30	Tea, coffee & posters
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Session 3: Modern Rivers
Chairs: Mike Blum & Adrian Hartley

09.30	Sediment-triggered meander deformation in the Amazon Basin Joshua Ahmed, Cardiff University
10.10	Cosmogenic nuclide concentrations in Neogene rivers of the Great Plains reveal the evolution of fluvial storage and recycling Hugh Sinclair, University of Edinburgh
10.30	Linear inverse modeling and scaling analysis of drainage inventories Conor O'Malley, University of Cambridge
10.50	Tea & coffee break
11.20	Can machine learning reveal sedimentological patterns in river deposits? Vasily Demyanov, Heriot-Watt University
11.40	Regional Cenozoic Uplift of Europe from Linear Inverse Modelling of Longitudinal River Profiles Fergus McNab, University of Cambridge
12.00	A comparison of two active-margin deltas: contrasting drainage responses to Neogene plate boundary processes Uisdean Nicholson, Heriot-Watt University

12.20	Brief poster presentations i) Nhecolândia wetland as record of environmental change: Using past and present dynamics to infer sensitivity to future climate changes Emiliano Castro de Oliveira, UNIFSP (to be presented by Sila Pla-Pueyo, Heriot-Watt University) ii) Proximal outcrop to distal core deposits comparisons for the hydrocarbon industry: examples from the Barmer Basin Hazel Beaumont, Keele University/University of Birmingham iii) A new high-performance depth-averaged modelling framework for flow-like landslides Xilin Xia, Newcastle University
12.40	Lunch & posters
Session 4: India Chairs: Bayo Adeloje & Ryan Periera	
13.30	Geomorphic Flux From Himalayan Flashflood Equates to 1000 yrs Average Erosion Rate Hugh Sinclair, University of Edinburgh
13.50	Future flood extents: capturing the uncertainty associated with climate change Lila Collet, Heriot-Watt University
14.10	Subsidence Controls on River Morphology in the Ganga Plain Elizabeth Dingle, University of Edinburgh (to be presented by Hugh Sinclair)
14.30	Tea & coffee break & poster
15.30	Testing the sensitivity of the Andes to environmental change using alluvial fan stratigraphy Rebekah Harries, University of Edinburgh
15.50	A High-Performance Integrated Hydrodynamic Modelling System Sustainable Catchment Systems Management Qihua Liang, Newcastle University
16.10	SPECIAL INVITED LECTURE The Queensferry Crossing: Bridge Foundations in an Estuarine Environment Paul Mellon, Transport Scotland & Alistair Chisholm, ARUP
16.30	Posters
20.00	Conference Dinner
Thursday 29 September 2016	
08.30	Tea, coffee & posters
Session 5: Modern Rivers Chairs: Mike Blum & Chris Hackney	
09.30	KEYNOTE : Describing Fluvial Systems : linking process to deposits and some considerations of grain size and scale Jim Best, University of Illinois

10.10	Stochastic modelling approach for synthesising streamflow Sandhya Patidar, Heriot-Watt University
10.30	Visualising bed deformation and sediment dispersal across dune fields Arjan Reesink, University of Southampton
10.50	Tea & coffee break
11.20	Groundwater typologies of the transboundary Indo Gangetic basin alluvial aquifer Alan MacDonald, BGS
11.40	Effect of dynamically varying zone hedging policies on surface water reservoir operational performance during climate change Adebayo Adeloje, Heriot-Watt University
12.00	Brief poster presentations <ul style="list-style-type: none"> i) The application of reservoir modelling techniques to solve geotechnical and groundwater issues in glacial and post glacial deposits in Glasgow, UK Tim Kearsley, BGS ii) Capacity Building for the formation of a Geo-Ecotoxicological Research Group Sila Pla-Pueyo, Heriot-Watt University iii) Big rivers and Quaternary deposits: A sedimentary study of the Euphrates river system Dorrik Stow, Heriot-Watt University iv) Fluvial system identification and characterisation using a subsurface dataset: Triassic of the Central North Sea Ewan Gray, University of Aberdeen v) Investigating Fluvial Reservoir uncertainty Using Process Models, and Their Application as Training Images in Multiple-Point Statistical Simulation Tom Buckle, Heriot-Watt University vi) Using braided process models for multi-scale MPS modelling of an oilfield Rhona Hutton, Heriot-Watt University
12.40	Lunch & posters
12.45	BGS Core Store Visit – Review of Triassic Braided Fluvial Core
13.30	BGS Core Store Visit – Review of Triassic Braided Fluvial Reservoir Modelling
14.30	Tea & coffee break & poster
Session 6: Modern and Ancient Chairs: Jim Best & Mike Blum	
15.30	Fluid mixing process in a shallow nature lake Jingchun Wang, Newcastle University
15.50	Insights in Fluvial Reservoir Architecture from Understanding the Myriad of Well Test Pressure Build-up Responses Patrick Corbett, Heriot-Watt University
16.10	Analysing fluvial response to a well-documented increase in global temperatures Amanda Owen, University of Aberdeen
16.30	Posters & close of conference

Friday 30 September 2016

08.45

Field trip to Spireslack, Glenbuck, Nr. Muirkirk