



Quaternary Research Association Annual Discussion Meeting

Hosted by Leeds Quaternary
University of Leeds

Tuesday 7th January 2020

1900: Informal ice-breaker at the [Water Lane Boathouse inn](#), Water Lane, Canal Wharf. Note all purchases are the responsibility of delegates and not included in the registration costs.

Wednesday 8th January 2020

Time	Speaker	Title
0900-0955	Registration, Parkinson Building	
Ice, oceans and sea level – Rupert Beckett Lecture Theatre, Michael Sadler Building		
0955-1000	Welcome	
1000-1030	Natalya Gomez Keynote speaker	Ice Sheet - Sea Level - Solid Earth Interactions
1030-1050	Edward Gasson	Differences in the rates and character of the last two glacial terminations
1050-1110	Sarah Bradley	Fully coupled simulation of the Northern Hemisphere climate and ice sheets during the Last Glacial Maximum with CESM2.1/CISM2.1
1110-1140	Coffee, Parkinson Building	
1140-1200	Kenji Izumi	Impacts of the PMIP4 ice-sheets on Northern Hemisphere atmospheric circulation during the last glacial period.
1200-1220	Jeremy Ely	An ensemble simulation of the last British-Irish Ice Sheet: Comparison with evidence and persistent model-data mismatch
1220-1240	Victor Cartelle	Buried glacial landscapes offshore the Netherlands: the southernmost limit of the Saalian ice sheet in the North Sea
1240-1300	Rachel Harding	The submerged Holocene landscape of the Brown Bank, North Sea and the search for evidence of Mesolithic inhabitation – a multi-disciplinary approach
1300-1400	Lunch, Parkinson Building	
1400-1420	Martina Conti	Molecular fossils inferring Quaternary sea-level changes
1420-1440	Sophie Norris	Rapid retreat of the western Laurentide Ice-Sheet driven by Bølling-Allerød warming
1440-1500	Jenna Sutherland	The impact of large proglacial lakes on past outlet glacier dynamics during the Last Glacial Maximum in New Zealand

1500-1530	Coffee, Parkinson Building	
Recent advances in Quaternary geochronology – Rupert Beckett Lecture Theatre		
1530-1600	Kirsty Penkman Keynote speaker	Through the Looking-Glass, and What Amino Acids Found There
1600-1620	Marc Dickinson	Intra-crystalline protein degradation dating of mammalian enamel: building geochronologies
1620-1640	Lucy Wheeler	Bringing amino acid geochronology of sea-level records up to date: investigating the intra-crystalline approach for foraminifera
1640-1700	Diana Sahy	The age of methane-derived authigenic carbonates at seafloor cold seeps on the U.S. Atlantic Margin
1700-1800	Poster session and drinks reception, Parkinson Building	
1800-1900	Quaternary Research Association AGM, including a presentation by INQUA President Thijs van Kolfschoten and medal presentations - Rupert Beckett Lecture Theatre, Michael Sadler Building	



The red brick building on the right is the Michael Sadler Building. The white porched door gives direct entrance to the Rupert Beckett Lecture Theatre, down one flight of stairs.

Thursday 9th January 2020

Time	Speaker	Title
0830-0900	Registration, Parkinson Building	
Quaternary carbon cycling – Rupert Beckett Lecture Theatre, Michael Sadler Building		
0900-0930	James Rae Keynote speaker	High latitude controls on glacial CO ₂ and climate
0930-0950	Charles Maxson	A Holocene carbon isotope record from Blue Lake North Stradbroke Island, Queensland, subtropical Australia
0950-1010	Craig Smeaton	Where's the Carbon: Exploring the Spatial Heterogeneity of Sedimentary Carbon in Mid-Latitude Fjords
1010-1030	Ben Fisher	Implications of Carboxylic Acids for the Preservation of Iron associated Organic Carbon in the Seafloor
1030-1100	Coffee, Parkinson Building	
Ecosystems – Rupert Beckett Lecture Theatre		
1100-1130	Angela Gallego-Sala Keynote speaker	Global peatland carbon: challenges and opportunities
1130-1150	Paul Morris	Spatiotemporal dynamics of Holocene fen-bog transitions in northern peatlands
1150-1210	Mariusz Gałka	Long-term Sphagnum succession in mountain peatland ecosystems across Central and Western Europe: implications for peatland conservation
1210-1230	Richard Fewster	Drivers of Holocene palsa distribution in North America
1230-1400	Lunch and poster session, Parkinson Building	
1400-1420	Dylan Young	Misinterpreting carbon accumulation rates in records from near-surface peat
1420-1440	Graeme Swindles	An oasis in a desert: A multiproxy palaeoecological record from a contemporary 'refugium' in Ilkley Moor
1440-1500	Rosie Everett	From the micro to the molecular: the challenges of contextualising multi-proxy taphonomic processes in understanding past ecosystem dynamics
Quaternary Science for the Earth's future – Rupert Beckett Lecture Theatre		
1500-1520	Matt Jones	Palaeobenchmarking Resilient Agricultural Systems
1520-1550	Coffee, Parkinson Building	
1550-1620	Paul Valdes Keynote speaker	Learning lessons from the Past – Does Quaternary Science help predict the future?
1620-1640	Peter Hopcroft	Unlocking abrupt dynamics through optimisation of climate model parameterisations: Application to the termination of the African Humid Period
1640-1700	Paul Fish	Quaternary science supporting management of nuclear waste on the Cumbrian coast
1700-1720	Tom Berry	Relict periglacial hazards in the UK: engineering guidance for hazard mitigation

1800-1900	Optional visit to the Leeds hippo, Leeds City Museum. 25 people per session – please sign up at the registration booth by 1400. Postgraduates will lead groups to the Museum from Parkinson Building at 1745 and 1815.
1930-late	Conference dinner, Tharavadu (ticket must have been purchased in advance)



Entrance to Parkinson Building, from Woodhouse Lane

Friday 10th January 2020

Time	Speaker	Title
0830-0900	Registration, Parkinson Building	
State shifts and abrupt changes – Rupert Beckett Lecture Theatre, Michael Sadler Building		
0900-0920	Julian Murton	State shifts in permafrost environments since the Middle Pleistocene at the Batagay megaslump, Siberia
0920-0940	Adrian Palmer	Developing British distal glaciolacustrine varve records as high resolution archives of abrupt climate change
0940-1000	Jonathan Dean	Rapid shifts during the late glacial-Holocene climatic transition in the Eastern Mediterranean region, reconstructed from multiple proxies in central Turkish lakes
1000-1020	Alastair Curry	Secrets from the Lady of the Lake: an 11,000 year history of episodic talus erosion and resedimentation in the Brecon Beacons
1020-1040	Edd Armstrong	A Northern Hemisphere terrestrial climate dataset for the past 60,000 years
1040-1110	Coffee, Parkinson Building	
1110-1140	Camille Li Keynote speaker	At the crossroads of atmosphere-ice-ocean mechanisms for abrupt climate change
1140-1200	Louise Sime	The impact of abrupt sea ice loss on Greenland water isotopes during the Last Glacial Period
1200-1220	Lauren Gregoire	The role of ice sheet dynamics in the collapse of the early-Holocene Laurentide Ice Sheet: implications for the 8.2 kyr event
1220-1240	Mark Bateman	Evidence for abrupt shifts in ice advance of the British and Irish Ice sheet into Yorkshire during the MIS 3.
1240-1400	Lunch and departure, Parkinson Building	

Poster Presentations Programme

Available to view in Parkinson Building throughout the conference, with dedicated poster sessions alongside a drinks reception 1700-1800 Wednesday 9th, and during lunch on Thursday 10th.

Presenter's name	Title
Abi Stone	Using portable luminescence readers to explore dryland dynamics
Alexander Jardine	Geomorphological and Archival Evidence of Coastal Storms
Andrew Mair	Spatial and temporal records of South Western Atlantic oceanography from the Uruguayan margin
Andy Emery	Down by the river: Terrestrial drainage network evolution at Dogger Bank during glacial to interglacial transition
Bing Liu	Ecology and paleoenvironmental application of testate amoebae in peatlands of the high-elevation Colombian páramo
Caitlin Nagle	Holocene relative sea-level changes in West Wales: data from the Dysynni Valley
Charlie Rex	Tracing state shifts from a terrestrial sequence spanning the last glacial-interglacial cycle in the Cheshire Basin, UK
Christopher Darvill	Retreat of the Cordilleran Ice Sheet and exposure of coastal islands during the last deglaciation in British Columbia, western Canada
Dale Tromans	The timing and spatial expression of Holocene rapid climate events: a view from the Dinaric Alps
Derek McDougall	Recent mountain glaciation and landscape development in the southern part of the Helvellyn Range, NW England
Emma Pearce	Modelling Firn: Is seismic Full Waveform Inversion the solution?
Eric Wolff	What happened to WAIS during the last interglacial? - how the new Skytrain Ice Rise core will help to answer that
Fiona Turner	Uncertainty and Emulation: Using Bayesian methods to learn more about past ice sheet shapes.
Graham Potts	Quantitative relationships between fault kinematics and glacial processes
Graham Rush	A high-resolution relative sea-level reconstruction from east Scotland to constrain the meltwater pulses that forced the 8.2 ka event.
Greg Rushby	Late Holocene Coastal Change at Malltraeth driven by sea level and anthropogenic change
Joshua Leigh	'Little Ice Age' maxima and glacier retreat in northern Troms and western Finnmark; northern Norway
Katie Cupples	Simulating anomalous enhanced North African precipitation during the mid-Holocene: a paleoclimatological enquiry using the isotope enabled HadCM3
Luis Rees-Hughes	Buried Beaches and Drowned Dunes: Reconstructing a late Holocene buried dune environment using 3D ground-penetrating radar imaging and image segmentation
Niall Gandy	Saddle Collapse of the Eurasian Ice Sheet in the North Sea caused by combined ice flow, surface melt and marine ice sheet instabilities
Ruza Ivanovic	The Last Deglaciation Meltwater Paradox

Sean Gilgannon	Morphological analysis of large-scale glacial and glaciofluvial bedrock-incised landforms
Simon Hutchinson	Rediscovering Relicks Moss: an overview of a multi-proxy peat core record of Holocene environmental change at Delamere, Cheshire
Stephen Eaton	Palaeogeographic change in response to glacial/interglacial cycles: Middle and Upper Pleistocene stratigraphy of the southern North Sea
Stephen Gale	Dating European contact in Australia: the eastern Australian magnetic inclination anomaly
Thomas Sim	The response of permafrost peatlands in Arctic Sweden to late Holocene climate change
Trevor Faulkner	The importance of Greenland interstadial 2
William Roberts	Changes in storminess over the last deglaciation in the Southern Hemisphere
Yucheng Lin	Inverting the source and magnitude of meltwater pulse 1A using sea-level constraints
Yvan Romé	Ocean circulation mode transitions in North Atlantic during Marine Isotope Stage 3

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