

British Organic Geochemistry Meeting 2023

Durham University

Sunday 16th July

Ice Breaker Event at Head of Steam (DH1 4RZ)

1800-2200

Join us at Head of Steam for our pre-BOGS icebreaker event. You can either meet us at Head of Steam, where we have a table booked, or you can meet Thale and Yas outside Hatfield College at 5.30pm (yasmin.cole@durham.ac.uk, thale.damm-johnsen@durham.ac.uk)

Monday 17th July

0900 1000 Registration and Coffee
1000 1015 Welcome and opening remarks

Session 1: Environmental Geochemistry

1015-1115

Chair: Rachel Schwartz-Narbonne

1015 - 1030 Charles Onyije: *Impact of micro and macro plastic degradation of different types on agricultural soil microbial community*
1030 1045 Mingchong Wang: *Removal of Tributyltin from Water Using a Coupled Adsorption and Electrochemical Regeneration Process*
1045 1100 Su Ma: *Performance of a novel water treatment process in removal of six typical antibiotics from tap water under different environmental conditions*
1100 1115 Rosamonde Venn: *Removal of azo-dyes using a novel water treatment process*
1115 1145 Coffee break

Session 2: Biogeochemical Cycles

1145-1245

Chair: Gordon Inglis

1145 1200 Harry Roberts: *Quantifying Carbon Composition in Relation to Environmental Drivers in a Temperate Peat Bog*
1200 1215 Mike Vreeken: *Tropical peatland biogeochemistry along an ecological transect: The enigmatic fate of organic matter*
1215 1230 Gertruda Zieniute: *Sedimentary Organic Carbon from Catchments to Coasts in Engineered systems*
1230 1245 Poster Flash Talks part 1
1245 1330 Lunch

Session 3: Biogeochemical Cycles

Chair: Mark Stevenson

1330-1530

- 1330 1345 Sponsor Talk by Elementar
- 1345 1400 Kirsi Keskitalo: *Landscape characteristics and particulate organic carbon composition in the Peel River watershed, Canada*
- 1400 1415 Philippa Rickard: *Surface active organic matter at the air-water interface*
- 1415 1430 Sponsor Talk by Thermo Fisher
- 1430 1500 Coffee break
- 1500 1515 Sponsor Talk by JSB
- 1515 1530 Poster Flash Talks
- 1530 1545 Short break

Session 4: Keynote Lecture

1545-1630

Chair: Erin McClymont

Bart Van Dongen: *Source, transport and fate of terrestrial organic matter along the Eurasian Arctic coastal margin*

Session 5: Poster Presentations

1630-1830

Environmental Geochemistry

- Theresa Alumona Depth-related Variation in Soil Microbial Phospholipid Fatty Acid (PLFAs) Composition at an Oil Spill Site in the Niger Delta, Nigeria.
- Florence Dennis Uzuh Removal of Polyaromatic Hydrocarbons from oil contaminated water using a novel treatment process
- Shiyu Song Impact of climate change on the formation of toxic disinfection by-products
- Charlie Monkley Characterising the Chemical Additive Content of a Synthetic Mulch Film
- Linhan Zhang Surveying nano-plastics in natural waters

Biogeochemical Cycles

Amy Gilbert	Assessing The Influence of Reactive Minerals On The Storage of Organic Carbon In Riverine Sediments: A River Trent Case Study.
Mollie-Ann Lowrie	The role of mineral interactions in the preservation of tidal wetland soil organic carbon
Charlotte Spencer-Jones	Characterising the Organic Geochemistry of the Makgadikgadi Basin
Mark Stevenson	2018 Arctic sea-ice minima increases algal production and deposition of organics to the Barents seafloor
Qian Zhang	Tracing organic carbon transformation and mobilization in an UK Upland Peat catchment as climate warms

Paleoclimates and Paleoenvironments

Matthew Allison	Icelandic Lignites - Contextualizing Deep Time Archives
Yasmin Cole	A history of sea ice and environmental change: a pre-Last Glacial Maximum to Holocene (~40,000 to 0 years) record from snow petrel stomach oil deposits
Eleanor Maedhbh Honan	The diet and foraging environment of breeding snow petrels (<i>Pagodroma nivea</i>) in Dronning Maud Land, Antarctica
Claire Penny	A reconstruction of Southern Ocean summer sea-ice variability across the Holocene: novel insights from snow petrel stomach oil deposits, Theron Mountains
Rachel Schwartz-Narbonne	Back to the future: Comparing Pleistocene to modern amino acid isotopic compositions to reveal woolly mammoth dietary niche
Mark Stevenson	2018 Arctic sea-ice minima increases algal production and deposition of organics to the Barents seafloor
Bridget Warren	An Early Eocene Climatic Optimum alkenone-based CO ₂ reconstruction from the Rockall Trough, Northeast Atlantic

Novel Biomarker Proxies

Josephine-Anne Newton	Compound Specific Radiocarbon Analysis method development at the NEIF Radiocarbon (Environment) Laboratory
Patthapong Chaiseanwang	development of 3-OH-FA based proxy calibrations for lakes and soils in Thailand
Jens Holtvoeth	Tracking ancient and modern microbial life in salt and brines of Boulby Mine (N Yorkshire) or: What to look out for on Mars

Conference Dinner

1900 2200

The conference dinner is at Hatfield College, food will be served at 1930

Tuesday 18th July

0830 0900 Coffee

Session 6: Paleoclimates and Paleoenvironments

0915 1100

Chair: Bridget Warren

- 0915 - 0930 Thale Damm-Johnsen: *A FAMES view into Southern Ocean ecosystem changes over the last glacial period*
- 0930 0945 Zhongxuan Li: *Occurrence and origin of perylene in Paleogene sediments from the Tasmanian Gateway, Australia*
- 0945 1000 Alexandra Auderset: *Reduced equatorial Pacific upwelling and carbon export during Middle Miocene Climate Optimum*
- 1000 1015 Claudia Sosa-Montes de Oca: *Intense changes in the main source of organic carbon to the ocean following the Cretaceous-Paleogene boundary*
- 1015 1030 Emily H. Hollingsworth: *The global response of fossil carbon mobilisation during the Paleocene-Eocene Thermal Maximum*
- 1030 1045 Olivia Graham: *Reconstructing pCO₂ in the Deep Geological Past using a General Phytoplankton Biomarker*
- 1045 1115 Coffee break

Session 7: Novel biomarker proxies

1115 1245

Chair: Jens Holtvoeth

- 1115 - 1130 Simon Brassell: *$\delta^{13}\text{C}$ Temporal Profiles of Algal, Plant Wax, & Bacterial Biomarkers Reflect Wet/Dry Cycles Recorded in Pleistocene Sediments from Paleolake Olduvai*
- 1130 1145 Emily Cooper: *The Production of Potential Lipid Biomarkers in Marine Fungi*
- 1145 1200 Elise Harrington: *Assessing the utility of geochemical pH and salinity proxies in the Green River Formation, USA*
- 1200 1215 Vivien Schneider: *Exploring the environmental abundance of potential biosynthetic precursors to brGDGTs; iso-diabolic acids and iso-C15:0 diethers*
- 1215 1230 Gemma Baker: *Characterising the diets of lemur species using organic geochemistry*
- 1230 1245 Megan L. Baker: *Organic carbon budget for submarine Congo Canyon: the overlooked role of active canyons as temporary terrestrial organic carbon stores*
- 1245 1300 Closing remarks, poster prizes, and BOGS 2024 host announcement

Optional Early Career Event

1400 1530

All BOGS 2023 participants are welcome to join us at our early career networking event.

We will have open discussions with our panellists Sarah Feakins (University of Southern California), Laura Milne (Integrated Geochemical Interpretation Ltd), Rachel Schwartz-Narbonne (Sheffield Hallam University) and Rob Spark (Manchester Metropolitan University).