



The Micropalaeontological Society
Annual Conference 2023
15th-17th November, Southampton

PROGRAMME

Bridging the Gap: Connecting microfossil groups,
environmental systems and people





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WELCOME

Dear TMS23 participants,

Warm welcome to Southampton for this year's TMS Annual Conference. We look forward to an exciting few days and the opportunity for everyone to meet familiar faces and new people, share knowledge and think about the future of micropalaeontology. Our team is here to assist you with any questions.

Many thanks to our sponsor "Copernicus - Journal of Micropalaeontology" for their generous support of this meeting.

We hope you enjoy the experience of #TMS23 here at Southampton!

- The TMS Annual Conference organising team



Alexandra Auderset



Tom Ezard



Chloe Jones



John Marshall



Use the hashtag #TMS23 to share your experience on twitter/X.



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CODE OF CONDUCT

In keeping with the ethos of the the **The Micropalaeontological Society**, we ask participants to maintain standards of professional conduct as outlined in this code of conduct.

We ask participants to:

- Behave in a respectful, considerate and professional manner
- Create a supportive, encouraging and equitable environment that is considerate of all career stages and subdisciplines.
- Refrain from discrimination of any kind – this includes race, nationality, religion, sex, gender identity, sexual orientation, disability, or age.
- Be respectful and tolerant of different cultural backgrounds
- Refrain from engaging in damaging or hostile behaviours that could be termed bullying. This is defined as any behaviour that employs threat, intimidation, or coercion, both directly or indirectly, to either abuse or dominate another individual.
- Refrain from engaging in damaging or hostile behaviours that could be termed harassment. This includes: i) sustained disruption of talks or other events, ii) inappropriate physical contact, iii) sexual attention or innuendo, iv) deliberate intimidation, v) stalking, and intrusive photography, or vi) recording of an individual without consent.

We ask all participants to abide by and uphold the principles of this Code of Conduct. Transgressions or violations will not be tolerated. The code of conduct applies to all participants (including but not limited to speakers, presenters, attendees, committee members, volunteers, guest exhibitors and sponsor representatives).

If you observe or experience harassment, bullying or any other disrespectful behaviour, please report it promptly to a member of the TMS 2023 organising committee.



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EVENING EVENTS



Ice breaker

Wednesday, 15th November at 17:00

University of Southampton Waterfront Campus |
National Oceanography Centre (NOCS)

Join us for our pre-TMS icebreaker event for some drinks and snacks at the exhibition area on Level 4.

The event is kindly sponsored by “*Copernicus – Journal of Micropalaeontology*”.



Conference Dinner

Thursday, 16th November at 19:00

Dancing Man Brewery Southampton

The conference dinner takes place in the picturesque medieval wool house, which was recently turned into a pub/restaurant.



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PROGRAMME DAY 1

15th November 2023

Pre-conference workshops

Workshop 1: Introduction to Data Visualisation Using R

Led by Prof. Tom Ezard (University of Southampton)

14:00 – 17:00

Red Library Room and online

Workshop 2: The power of mud – Recognising and describing features with sediment cores

Led by Dr. Suzanne Maclachlan (National Oceanography Centre)

13:30 – 16:30

BOSCORG – British Ocean Sediment Core Research Facility

Workshop 3: What can AI do for you?

Led by Dhruv Khanna (AISOC – Artificial Intelligence Society Southampton)

14:00 – 17:00

Node Room 084/02 and online

Workshop 4: palsys.org and DINOSTRAT – two platforms for dinoflagellate cyst taxonomy and stratigraphy for the community

Led by Prof. Peter Bijl (Utrecht University)

14:00 – 17:00

Room 164/22 and online

Please meet 10 min before the workshops start at the entrance hall of the National Oceanography Centre (NOCS)/ University of Southampton Waterfront Campus to get your visitors pass and we will guide you to the assigned rooms.

17:00 – 19:00 Ice-breaker event sponsored by “Copernicus – Journal of Micropalaeontology”
(Location: NOCS/ Waterfront Campus, exhibition area level 4)



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PROGRAMME DAY 2

Thursday, 16th November 2023

Location: Big Seminar Room Level 4 next to exhibition area (104/13)

(All indicated times are for the GMT time zone)

09:00 – 09:15 Welcome and opening remarks

Session 1 – Climate (Chairs: Alexandra Auderset & Robyn Granger)

09:15 – 09:45 Flavia Boscolo-Galazzo (Keynote)

Evolution of modern plankton communities and their future in the face of Anthropogenic climate change

09:45 – 10:00 Jessica McCoy

Temperate to tropical palaeoclimates on the northwest edge of Europe during the Oligocene—early Miocene (33.9—15.97 Ma)

10:00 – 10:15 Alan Kemp

Exceptional Gulf of California diatom blooms mark resurgence of El Niño and the North American Monsoon in transition to Greenland Interstadial 12

10:15 – 10:45 Coffee break

10:45 – 11:00 David Horne

Niche stability vs niche lability of Quaternary non-marine ostracods: implications for palaeoenvironmental reconstruction and conservation biology.

11:00 – 11:15 Tom Hill

The Richborough Connection Project: Reconstructing 13,000yrs of landscape change

11:15 – 11:30 Karen Gariboldi

Paleoceanographic significance of diatom seasonal laminations in the Upper Miocene Pisco Formation (Ica desert, Peru): clues on past “El Padre” climatic mean state

11:30 – 11:45 Michael Grant

Coastal Lagoonal Evolution within eastern England during the Early Holocene

11:45 – 12:00 Flash talks for poster presentations

12:00 – 12:45 Lunch Break



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PROGRAMME DAY 2

Thursday, 16th November 2023

Session 2 – Assemblages (Chair: Stephen Stukins)

12:45 – 13:15 Sandra Nogué-Bosch (Keynote)

Island time-lines to quantify biodiversity change

13:15 – 13:30 Simon Penn

Microfossil assemblages in the Lower Cretaceous, non-marine Wessex Formation of Dorset, southern England.

13:30 – 13:45 Adam Woodhouse

Global biogeographic response of marine plankton to the Eocene-Oligocene Transition

13:45 – 14:00 Matthew Staitis

A geological analogue for the future – Initial investigations of a shallow marine PETM section, northern Caucasus

14:00 – 15:30 Poster presentations

15:30 – 16:15 TMS General Meeting

16:15 – 16:30 Coffee break

Session 3 – Locations and environments (Chair: Anieke Brombacher)

16:30 – 17:00 Peter Bijl (Keynote)

The late Cenozoic history of Southern Ocean frontal systems and latitudinal temperature gradients revealed through organic microfossils and biomarkers

17:00 – 17:15 Petra Hus

Benthic Foraminifera reveal the Holocene paleoenvironments and sea transgression in the Krka River estuary (Adriatic Sea, Croatia)

17:15 – 17:30 Barbara Zagbayou

Nannostratigraphic study of the Cretaceous / Paleogene formations of the Côte d'Ivoire sedimentary basin (West Africa): Evolution of depositional environment

17:30 – 17:45 Ammoose K Jayan

Did Globigerinoides ruber (pink) completely disappear from the Indian Ocean after ca. 120 kyr BP?

19:00 – 21:00 Conference dinner at Dancing Man Brewery



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PROGRAMME DAY 3

Friday, 17th November 2023

Location: Big Seminar Room Level 4 next to exhibition area (104/13)

Session 4 – Morphology & taxonomy (Chair: Chloe Jones)

09:00 – 09:30 Elizabeth Sibert (Keynote)

A fishy history from the bottom of the sea: using ichthyoliths to reconstruct fish and shark evolution

09:30 – 09:45 Peter Kiss

Digital biostratigraphy workflow using legacy data from the Sureste Basin (Gulf of Mexico)

09:45 – 10:00 Richard Twitchett

Application of artificial intelligence approaches to nannofossil biostratigraphy in order to unlock historic museum collections of chalk fossils

10:00 – 10:15 Jeremy Young

Mikrotax - progress, prospects, and the challenges of expansion.

10:15 – 10:45 Coffee break

10:45 – 11:00 Paul Milner

Automatic species detection and classification in palynological slides using deep learning: A North Sea test case and where do we go from here?

11:00 – 11:15 Anieke Brombacher

Extinction through time and space: a multivariate framework for extinction risk

11:15 – 11:30 Stephen Stukins

Reduviasporonites: where are we at with the enigmatic Permian-Triassic palynomorph?

11:30 – 11:45 Michael A. Kaminski

Vase-shaped microfossils (VSMs) and possible trochamminid foraminifera from the Ediacaran Dhaiqa Formation of Saudi Arabia

11:45 – 12:00 Flash talks for poster presentations

12:00 – 12:45 Lunch Break



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PROGRAMME DAY 3

Friday, 17th November 2023

Session 5 – Earth System (Chair: Tom Ezard)

12:45 – 13:15 Mariem Saavedra-Pellitero (Keynote)

Particulate Inorganic Carbon in the Pacific Southern Ocean: a comprehensive analysis of satellite-derived and coccolithophore in-situ measurements

13:15 – 13:30 Runa T. Reuter

Micro-FTIR spectroscopy of dinoflagellate cysts - a step towards better understanding of selective organic matter transformation in the water column?

13:30 – 13:45 Stergios Zarkogiannis

Influence on surface ocean density on foraminifera biomineralization

13:45 – 14:00 Jaime Suárez-Ibarra

Decoding calcium carbonate dissolution in the western South Atlantic: interplay between productivity and water masses dynamic

14:00 – 15:00 Poster presentations

15:00 – 15:15 Gil Machado

Digital palynology and artificial intelligence - new tools for biostratigraphers

15:15 – 15:30 Ruby Barrett

Planktic foraminiferal resilience to environmental change associated with the PETM

15:30 – 15:45 Paula Narvaez

Closing the temporal gap: century-scale changes in terrestrial and marine ecosystems through the Early Toarcian (Early Jurassic) extinction event

15:45 – 16:00 Closing remarks and award ceremony



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POSTERS I

Katell Alaime	The use of sensitive dinoflagellates cysts as a proxy to quantify bottom waters oxygen concentrations
Laia Alegret	Benthic foraminiferal turnover across a rapid Eocene global warming event in the Tasman Sea
Aamir Ali	Investigating diagenetic features, biostratigraphy, lithofacies properties, and depositional environmental of the Margalla Hill Limestone exposed at H
Filip Anđelković	Sequence stratigraphic significance of marine foraminifera in rift basins: example from Krčedin (Middle Miocene, Serbia)
Odysseas A. Archontikis	Coccolithophore recovery and diversification across the K-Pg boundary: insights from the Agulhas Plateau (IODP Expedition 392)
Anna Arrigoni	Foraminiferal assemblage, sea level reconstruction and climate variability in the eastern Indian Ocean: an Early Middle Pleistocene Transition study
Alexandra Auderset	Foraminifer-bound nitrogen isotopes as a proxy of photosymbiont activity: Evidence from South Atlantic sediments
Sruthy Baby	Evidence of Fluctuating Sea Levels and Shifting Indian Summer Monsoon Patterns Along the Saurashtra Coast
Hannah Bird	Actinopterygian and chondrichthyan productivity, community structure and evolution during early Cenozoic warming in the Mentelle Basin, Australia
Ian Boomer	Pristine preservation of Pliensbachian (Early Jurassic), calcareous microfossils from Whitepark Bay, Co. Antrim.
Ian Boomer	Utility of calcareous microfossil assemblages to date and provenance fossil marine reptile specimens in museum collections
André Bornemann	High-resolution calcareous nannofossil biostratigraphy and chemostratigraphy for the Lower Cretaceous (Berriasian - Aptian) of the Lower Saxony Basin
Julia De Entrambasaguas	Micropaleontological turnover across a late Eocene (Priabonian) carbon and oxygen isotope shift on Blake Nose (NW Atlantic)
Arianna V. Del Gaudio	Biostratigraphic and paleoecological reconstructions at Fantangisña seamount in the NW Pacific Ocean based on foraminifera and calcareous nannofossils



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POSTERS II

Yaima Dominguez Samalea	Southwestern Baja California Sur margin benthic foraminiferal assemblage record for the last 1200 years in Oxygen Minimum Zone
Giulia Filippi	Planktic foraminiferal productivity and test-size changes at the Early Eocene Climatic Optimum (EECO, ~53-49 Ma; Pacific Ocean, sites 1209-1210)
Giacomo Galli	Foraminiferal assemblage over the last 2000 years in Edisto Inlet (Ross Sea, Victoria Land Coast, Antarctica) and their paleoenvironmental significance
Sushanth Gattupalli	New data on late Miocene size-fraction coccolith isotopes
Madhura Ghosh	From the top to the bottom - Foraminiferal Response to Temperature Changes During the Eocene
Robyn Granger	Combining foraminifera and lipid biomarkers to investigate denitrification and anammox in the Benguela Upwelling System
Charlotte Greenall	Uncovering the long-term sensitivity of Southern Ocean phytoplankton to Antarctic climate change using diatom micropalaeontology and ancient DNA
Emma Hanson	Size-fraction coccolith stable isotopes and Sr/Ca ratios from the Miocene to Recent
Tamara Hechemer	Reconstructing Middle to Late Miocene environmental conditions at Broken Ridge (ODP Site 752A) using benthic foraminifera assemblages
Babette Hoogakker	A review of proxies for low oxygen paleo reconstructions
Chloe Jones	Classification challenges from overlapping distributions from final whorl chamber numbers
Ana Lopes	Reconstructing SW Iberian Margin Surface Ocean Conditions from the Late Pliocene to Early Pleistocene
Elisa Malinverno	Coccolithophore variations in the late Pleistocene-Holocene in the Pacific Sector of the Southern Ocean - IODP Expedition 383
Tiago Menezes Freire	Changes in the upper water column structure of the western South Atlantic during the last glacial inception



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POSTERS III

Tiago Menezes Freire	Dating of coastal upwelling in northern-central Chile: an integrated microfossil record of sediments from the Neogene Bahía Inglesa Formation
Oskar Mitrovic	Morphometrics of Reticulofenestra during late Miocene in the Pacific Southern Ocean
Ellis Morgan	Effects of the Pacific Antarctic Circumpolar Current on the extant coccolithophore <i>Emiliana huxleyi</i> -IODP Expedition 383-
Fatma Zohra Moud	Benthic foraminiferal morphology of upper Turonian-early Coniacian: Estimation of paleodepth and paleoenvironment in northeastern Algeria
Ella Quante	Ostracod taphonomy and ecology in Lake Stechlin, NE Germany—an actualistic approach
Susan Richardson	An Overview of the Ecology of Foraminifera in the Indian River Lagoon, Florida
Claire Routledge	Calcareous Nannofossils from the Paleocene-Eocene Thermal Maximum, IODP Site U1557, South Atlantic Ocean
Urbashi Sarkar	Correlation between foraminiferal assemblage and textural characteristics of sediment: a comparative study from tide and wave dominated beach
Mariem Saavedra-Pellitero	Coccolithophores: Bridging the Gap between Science and People
Bhakti Shah	Holocene to Late Pliocene Climate Reconstruction: A snapshot from the Red Sea using Micropalaeontological Tools
Silvia Sigismondi	Testing the planktic foraminiferal resilience to the Middle Eocene Climatic Optimum (MECO) in the Atlantic Ocean
M. Srivastava	Responses of calcareous nannofossils to mid-Pliocene climate-carbon cycle dynamics in the North Atlantic
Tonka A. Strack	Unravelling the long-term response of marine plankton biodiversity to climate change since the Last Glacial Maximum
Matthew Sutton	Asynchronous North Atlantic productivity changes during the last 200ka resolved from microfossils and BaXS
Raúl Trejos Tamayo	MicroStratiRange v2.0 (MSR): an open-source software for biostratigraphy



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USEFUL LINKS

Our event website:

<https://generic.wordpress.soton.ac.uk/tms2023/>

The Micropalaeontological Society:

<https://www.tmsoc.org>

School of Ocean and Earth Science, University of Southampton:

<https://www.southampton.ac.uk/about/faculties-schools-departments/school-of-ocean-and-earth-science>

National Oceanography Centre:

<https://noc.ac.uk>

Dancing Man Brewery:

<https://dancingmanbrewery.co.uk>

Southampton Tourism:

<https://visitsouthampton.co.uk>