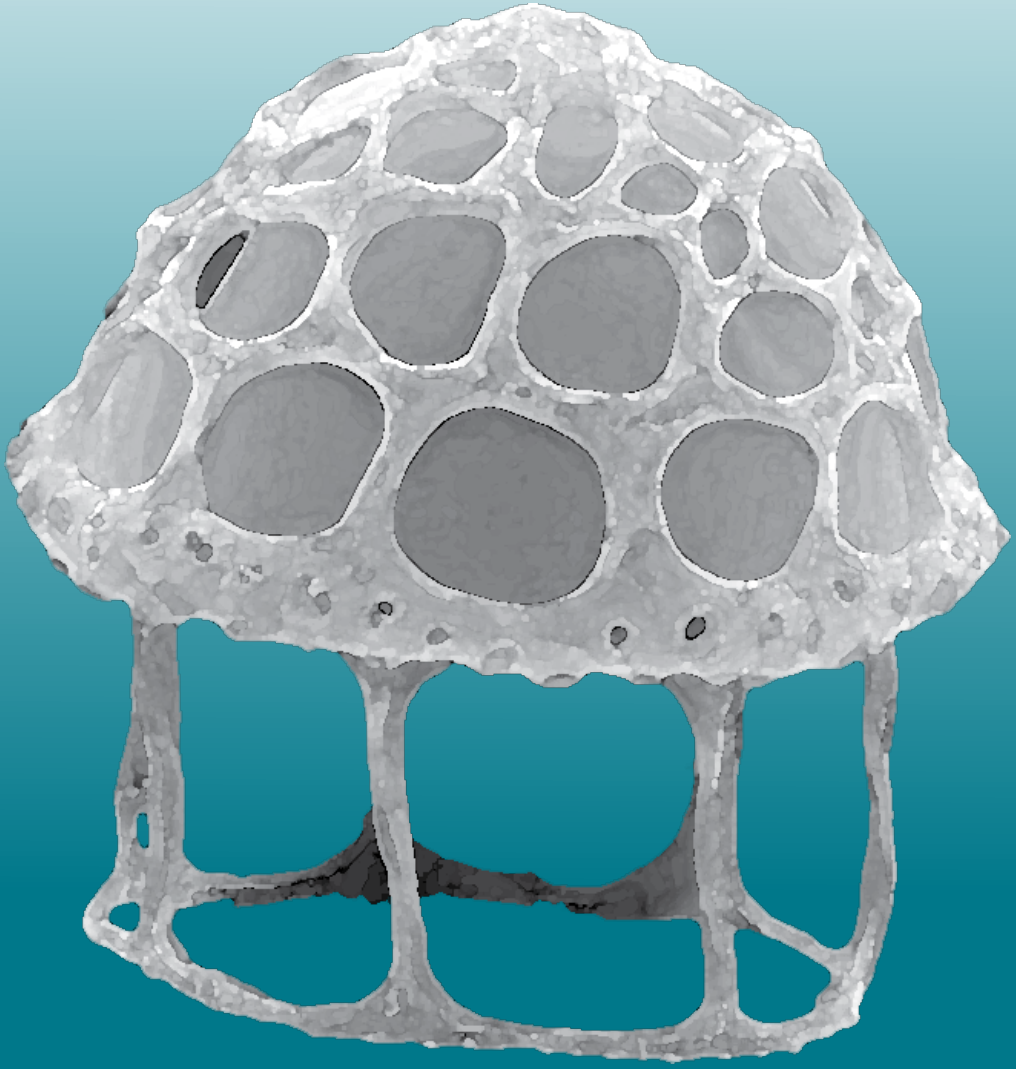
# Newsletter of Micropalaeontology

Number 88
August 2013

Edited by Magali Schweizer



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The International Nannoplankton Association


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## Contents

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## Correspondence

Please send items of news, comments, letters or articles for publication such as conference reports or meeting announcements to the editor. These should be supplied as plain text files or as Word documents. Photographs or illustrations to accompany articles are also welcome. Please send photos as high resolution JPEG images. Please send all correspondance to the editor: Magali Schweizer, School of GeoScience, University of Edinburgh, West Mains Road, Edinburgh EH9 3JW, UK, or by email to newsletter@tmsoc.org.

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The *Newsletter of Micropalaeontology* is published by The Micropalaeontological Society twice yearly in January and August. The copy dates for each issue are 1st December and 1st July.

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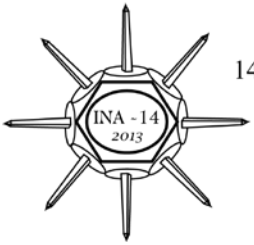


14th International Nannoplankton Association Meeting
September 15-21st, 2013
Reston, VA (USA)

The International Nannoplankton Asssociation invites you participate in the upcoming INA14 meeting, to be held in Reston, Virginia. Session Topics include (but aren't limited to) Biogeography, Biostratigraphy, Paleoenvironment, Geochemistry, and Industry Related issues.

Talks pertaining to all aspects of calcareous and siliceous phyoplankton research will be presented.

The meeting will include:

- Three days of Oral and Poster Sessions
- One day of Workshops
- Pre-Conference Field Trip
- Post-Conference Field Trip
- Keynote Speaker: Dr. Brian Huber
- Plenary Speaker: Dr. Barney Balch

For additional information, go to the official website at https://my.usgs.gov/ina14/

Organizer and Host: Jean M. Self-Trail (jstrail@usgs.gov)

# The Micropalaeontological Society

http://www.tmsoc.org

# Annual Conference 2013


**Proposed schedule:**

***Monday 18th*: 'Micropalaeontology and the IODP' symposium and Society AGM**

The afternoon symposium focussed on multiple applications of micropalaeontology in the IODP will be reviewed by five keynote speakers, followed by TMS Awards and brief Society business. There will be optional tours of the NHM micropalaeontology facilities and collections in the morning, a drinks reception in the evening, and a conference dinner.

***Tuesday 19th*: Keynote lecture and open talks on micropalaeontology**

The day will include open poster and oral presentation sessions. We welcome the submission of abstracts for posters and short (15min) presentations across all aspects of the discipline. We particularly encourage talks and posters from doctoral students and early career scientists.

**UK-IODP funded bursaries will be available through the TMS for postgraduate and early career researchers.**

Registration will be £20/£10 for waged/unwaged TMS members, £40/£20 for non-members

Poster/Presentation Abstract deadline 30th September 2013. Further information regarding conference fees, accommodation options and transport etc. will be available at www.tmsoc.org/agm2013.htm

**For further information please contact:**

micropalaeontology@nhm.ac.uk

**NHM conference convenors:**
**Tom Hill, Steve Stukins & Giles Miller**

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# Specialist Group News

## Foraminifera Group Report

**Bill Austin, Kirsty Edgar**

The Foraminifera and Nannofossil spring meeting themed "The micropalaeontological record of global change: from epicontinental seas to open ocean" was held on the 19th-22nd June 2013 at Charles University in Prague and had 52 attendees including 16 posters and 27 oral presentations. Sessions covered a wide range of themes encompassing both molecular and fossil data. Many thanks to Katarína Holcová and colleagues for organizing a most enjoyable meeting, field excursion and guided walk of the city of Prague.

The 2014 joint Foraminifera and Nannofossil spring meeting will be held on the island of Texel at the Royal Netherlands Institute for Sea Research (NIOZ) with a provisional theme of "Foraminifera and Nannofossils through time; qualification and quantification". The proposal is led by Els Ulkes from the University of Amsterdam along with Prof. G.-J.A. Brummer; Dr C. Cléroux, Dr L.J. de Nooijer, Dr G.–J. Reichart, Dr G.M. Ganssen and Dr F.J.C. Peeters.

Forams 2014: The International Symposium on Foraminifera will be held at the University of Concepcion, Chile from 19-24 January 2014. The website is now open and abstracts for the six thematic sessions are being accepted at http://www.udec.cl/forams2014/.

European Geosciences Union - Malcolm Hart (Plymouth University), Lennart de Nooijer (NIOZ), Gerald Ganssen (Amsterdam University), Joan Bernhard (Woods Hole Oceanographic Institution) and William Austin (St Andrew's University) are intending to submit a proposal to the EGU Programme Committee for a session at the General Assembly (27th April - 2nd May 2014) on the theme of "Ocean acidification: past, present & future" with a view to bringing together those working on modern environments and the fossil record. In many cases (T/J boundary and K/Pg boundary) acidification is being identified as one of the causes of faunal change and is important that the various communities come together to share ideas and concerns. Offers of talks, posters and other forms of presentation must be made through the EGU website in the autumn.

D.J. Carter DFC (1922-2013) - It is with some sadness that we report, via Malcolm Hart, the peaceful death of Dave Carter in June 2013. He retired from Imperial College in 1982, where he had been a member of staff since the 1950s. He taught many generations of undergraduate students and a number of postgraduate research students, including Martin Norvick, Graham Williams, John Murray and Malcolm Hart. He made a significant contribution to micropalaeontology over the years, including the site investigation of both the Channel Tunnel and the Thames Barrier. A full obituary is in preparation.

## Nannofossil Group Report

**Matthew Hampton, Simon Cole**

The recent 10th Annual TMS Joint Foraminifera and Nannofossil groups Spring Meeting, hosted at the Charles University in Prague on June 19th – 22nd continued to build on the success of previous meetings and our thanks go to Katarína Holcová and team for organizing such a good meeting, field trip and accompanying social events. The meeting was entitled "The micropaleontological record of global change: from epicontinental seas to open ocean". A report on this meeting has been prepared separately for this newsletter by Cherry Newsam and Kirsten Meulenbroek (p. 18).

The venue for the Joint Foraminifera and Nannofossil Group Spring Meeting next year will be the island of Texel, at the Royal Netherlands Institute for Sea Research (NIOZ), with the date set provisionally for 25th-28th June 2014. The meeting theme will be 'Foraminifera and Nannofossils through time; qualification and quantification'. We would encourage all nannofossil

workers, researchers and students to attend and present at this meeting in order to ensure a strong TMS Nannofossil Group component to this meeting. For further details please look at the TMS website, The Micropalaeontological Society Facebook Group page or follow the TMS on Twitter (search for TMSoc or @MicropalaeoSoc).

Another event to have taken place in the nannofossil community was the Coccolithophore geochemistry workshop on 30th-31st May, held at Imperial College, London. Thanks to Tom Dunkley Jones for providing the following report:

This workshop brought together 18 attendees from Spain, France, Sweden, Germany and the UK to discuss current research in coccolithophore geochemistry. With a good mix of PhD students, post-docs and experienced researchers, and across the disciplines of palaeontology, modern biology and geochemistry, this focused on the use of coccolithophore-based proxies for understanding past biological and environmental change. It is hoped that this initial meeting will foster links between European researchers working on various aspects of coccolithophore geochemistry in both modern and ancient systems. Topics discussed at the meeting included:
1) fundamental understandings of biomineralisation and the causes of isotopic and trace metal variability in coccolith calcite;
2) culture studies as the basis for proxy calibration;
3) geochemical studies on modern plankton samples and bioassays;
4) future core top calibrations of coccolith proxies;
5) modes of preservation of fossil coccolith calcite and geochemical implications; and,
6) analytical methodologies and the interpretation of coccolith palaeoproxy data.

TMS support was greatly appreciated in helping international and UK student participants to attend.

With regard to other activities, we are in the process of planning a 'Gault Clay' themed weekend field trip for Autumn 2013. This trip will be open to all TMS members and more details will follow. However, if you are interested in attending then please contact us for more information (matt@network-stratigraphic.co.uk) or simon.cole@petrostrat.com).

TMS is also affiliated with the International Nannoplankton Association and the current INA President, Paul Bown has prepared the following report on INA news:

The INA is preparing for its 14th international meeting, to be held in September this year. It's still not too late to sign up! With over 95 presenters from as many as 25 countries representing industry, academia, and government, the INA14 meeting is shaping up to be one of the most well-represented nannoplankton meetings to date. The meeting will be organized and hosted by Jean Self-Trail at the USGS in Reston, Virginia (USA), only a short trip on the subway from Washington D.C. The meeting has a lot to offer the visiting scientist, including two conference field trips (one to learn about the Triassic basins of the East Coast as well as the wines produced there, and one to visit the world famous Calvert Cliffs of Maryland), four conference workshops, that are included in the registration fee, and talks on a variety of nannoplankton topics including: modern coccolithophore ecology, Triassic to Pleistocene biostratigraphy, new preparation techniques, taxonomy, and much more! Our keynote speaker, Dr Brian Huber, will discuss correlation between calcareous nannofossils and foraminifera, and our plenary speaker, Dr Barney Balch, will discuss geochemistry and ocean acidification. So, if you haven't done so already, go check out the official website (https://my.usgs.gov/ina14/) and set aside the dates (September 15th-21st, 2013) and join us in beautiful Northern Virginia for INA14!

### International Nannoplankton Association Election of Officers:

It's that time again! Paul Bown will be stepping down as INA President and passing over the reins to a new, incoming person at INA14. You will be shortly receiving a ballot via email (also available on the INA website) asking you to choose who you would like to be the next INA president. Please take the time to read over the candidate's qualifications and make an informed decision. This is your organization - please VOTE!

# TMS Grant-in-aid Reports

## The Micropalaeontology Society Foraminifera and Nannofossil Groups Joint Spring Meeting 2013, 19th-22nd June 2013, Prague, Czech Republic

**Kirsten Meulenbroek, VU University of Amsterdam**
**Cherry Newsam, University College London**

The 10th TMS Foraminifera and Nannofossil Groups Joint Meeting was held this year in Prague, with a focus on 'The micropalaeontological record of global change: from epicontinental seas to open ocean'. We (Kirsten and Cherry) were fortunate to be awarded TMS Grants-in-Aid to attend the conference and we would like to give a short summary of the wonderful time we had to the other TMS members.

The conference started with an afternoon city tour; after riding the funicular we strolled through the park, which had brilliant views across the city and we received an overview of Prague's interesting history including the appearance of a correlation between the 'Golden Ages' of the city and periods of climatic warming. A walk round the castle to the senate gave us a real feel for the cobbled streets and historical beauty of Prague. An evening Welcome Reception with a delicious buffet was held in the basement of the department where the hosts unveiled a natural history museum full of palaeontological wonders. Be sure to visit the top floor whenever passing by, a display of paintings gives a beautiful impression of the changes in environment throughout earth history.


The first day of the lecture series was packed full of 15 interesting talks across four sessions. The first talk of the conference, by Magali Schweizer on DNA genotyping of benthic foraminifera, was a great start to the 'molecular data and its applications' session, followed up with Angela Roberts combining innovative molecular results with her morphological studies of the benthic foraminifer *Elphidium*. After the talks focusing on foraminifera themselves, the rest of the day was spent on talks about the different types of proxies used and their possible applications. Despite the heat (~35°C!) the great talks kept coming with Juliane Steinhardt discussing how eddy and non-eddy periods in the Mozambique Channel affected planktic foraminifera Mg/Ca results and Claudia Lupi reviewed carbonate production and preservation at Chatham Rise

during glacial/interglacial cycles. Some proxies were shown to give improved results and an exciting new proxy (Na/Ca) for reconstructing ocean salinity was presented. We had a mid-afternoon break for a poster session, where all participants presented a short overview of their research, followed by time to view the posters and ask any further questions on the research presented. Magdalena Holcová showed that, with her high school graduation project on different microscopic applications, contributions to our field with promising results can be done at young age. The final session of the day included a talk from Kirsty Edgar on the long-term issue of diagenetic alteration in benthic foraminifera. After excellent talks and record-breaking temperatures, the conference group headed to U Bansethu, a traditional family Czech restaurant. There we sampled the local cuisine, the very local beer from the microbrewery in the restaurant and filled the evening with more talks, of a social nature this time.

The second day of lectures kicked off with a talk by Michael Hesemann on the excellent work enthusiastic amateur foraminifera workers are carrying out to produce a user-friendly forminifera image database (www.foraminifera.eu). Talks for the rest of the day then followed through geological time from the Cretaceous into the Quaternary and where the first day was focused on foraminifera alone, now some nannofossils were mixed into the talks. Presentations by Eiichi Setoyama on the late Cretaceous Voring Basin fan system and Palaeocene Eocene Thermal Maximum research by Daniel Austin looking at exceptionally well-preserved calcareous nannoplankton, proved that despite their age, older, well preserved materials


can provide really solid records. Mike Kaminiski discussed the unusual deep-sea benthic foraminifera in the North Atlantic at the Eocene Oligocene Transition and José Pérez-Asensio presented Messinian palaeoproductivity changes using foraminifera relating to the closure of the Atlantic Mediterranean gateway. Overall there was a great variety in the talks throughout the two days, with Cretaceous through to present day studies and topics ranging from molecular data to geochemical records and palaeoenvironmental interpretations. The conference was closed with a presentation by Lennart de Nooijer with an overview of next years conference, which will be held at the Royal Netherlands Institute for Sea Research (NIOZ) entitled: 'Foraminifera and Nannofossils through time: Qualification and Quantification', on the island of Texel, a location where the coastal mudflats provide us with a great opportunity to practise our sampling methods and see the workings of an analytical lab up close.

On the Saturday, members of the conference party set off on a field excursion to study outcrops close to the historic town of Kutna Hora. There were three Cretaceous outcrops to visit, with plenty of fossils to hunt for and even sampling possibilities. The first locality consisted of Upper Cretaceous sediments of bioclastic limestones with overlying siltstones; many sponges were found by the group, including a new species, as well as echinoderm spines and brachiopods. The second locality provided a transgressive sequence of conglomerates overlain by bioclastic limestones and calcareous marlstone at the top of the section. The site yielded similar

fossils as the first one, but also included oysters and pectin shells. The final locality was a sinkhole, formed due to a collapse caused by tunneling from miners. We were given an overview of the outcrop from the edge and the field guides had kindly taken samples for anyone in the previous week to take home. In the afternoon we were able to visit some of Kutna Hora's cultural sights; Sedlec Ossuary, St Barbara's Cathedral and chapel, all built with fossil-filled stones mined from the surrounding area. The ossuary with art made out of human bones in particular struck quite a nerve.

All in all, the meeting was very interesting on a scientific and cultural level as well as a nice social gathering, welcoming new members of the scientific community with open arms, encouraging them to share their contributions and lift their enthusiasm to a new high.

We would like to thank the sponsors, our field guides Radek Vodrazka, Miroslav Bubik and Lilian Svabenicka all from the Czech Geological Survey, the TMS committee for supporting our participation at the conference, but most of all we would like to thank Katarína Holcová for her organization of the 10th meeting.

## *MEDGATE Network Training Event in Rabat (2013)*

**Alistair Cutler, University of Birmingham**

In March 2013 I applied to TMS for a grant-in-aid to go towards a fieldtrip related to my MSc. dissertation. One month later I was leaving behind the Artic spring of Birmingham for the sunnier climes of Morocco, using my £300 grant towards the cost of flights. The aim of my study is to re-examine a hypothesis proposed in the early 90s. This event is an influx of psychrospheric ostracod assemblages in the event strata, in NW morocco, where the one of the two passages linking the Mediterranean to the Atlantic would have been, 6Ma, in the lead up to the Messinian salinity crisis, which saw desiccation of the Mediterranean Sea. This assemblage indicates a current reversal from outflow, to inflow in the bottom waters at the time. The event requires re-examination as recent studies of geochemical water mass tracers conflict with the hypothesis.

The project is in association with MEDGATE, an EU Marie Curie funded training network, whose primary remit is to train future academic and industrial scientists through PhD and post-doc projects. The first of three days in Morocco was spent hearing presentations from MEDGATE researchers on recent developments. This provided me with valuable background knowledge for my dissertation, and showed how my research fitted into the aims of the net-

*Louja Quarry*

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