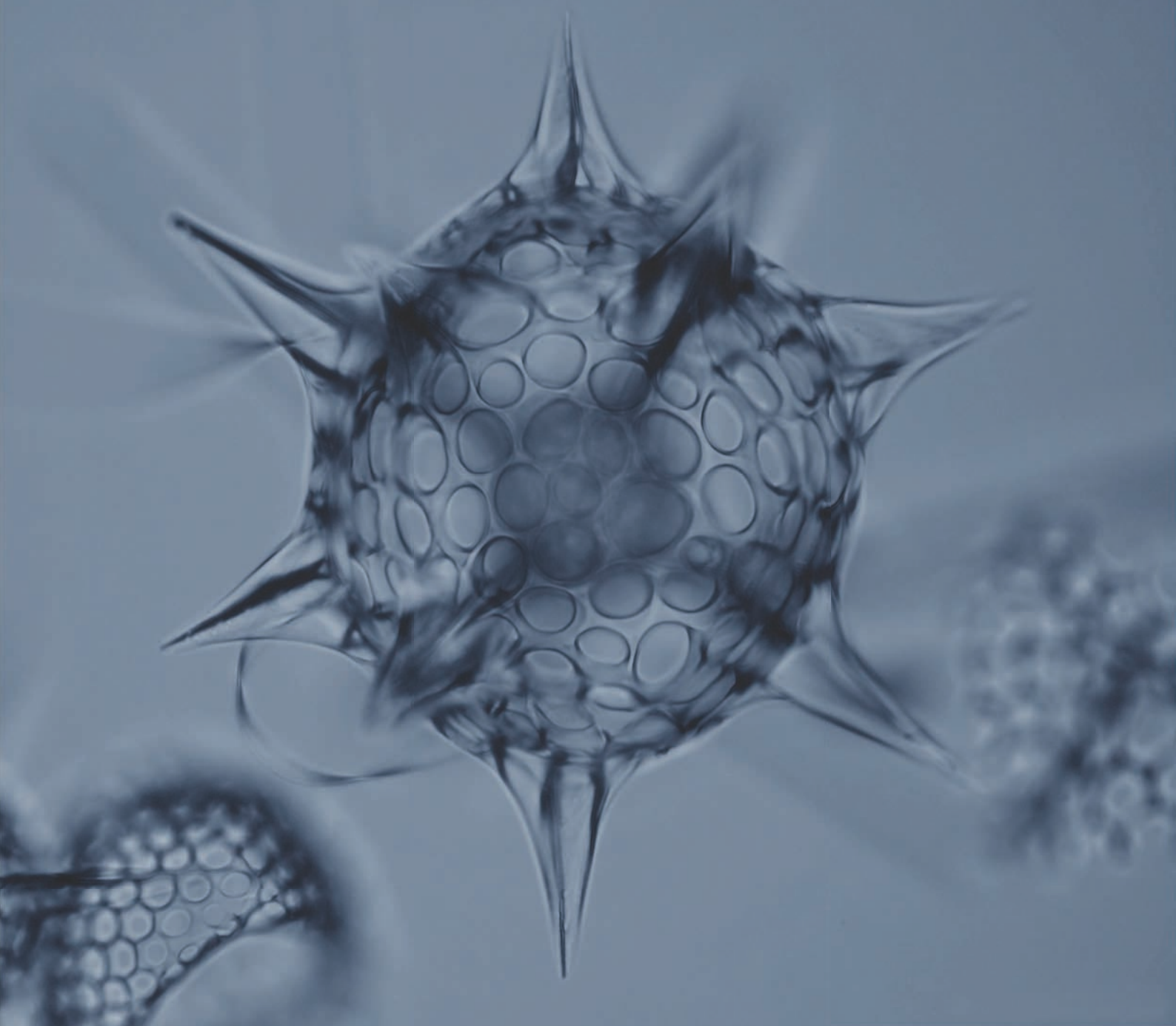


# Newsletter of Micropaleontology

Number 92, August 2015

[www.tmsoc.org](http://www.tmsoc.org)



**The  
Micropalaeontological  
Society**

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**Cover image:** The radiolarian *Actinomma golownini* from the Middle Miocene sediments of the Southern Ocean. Imaged by David Lazarus, Museum fur Naturkunde, Berlin, Germany.

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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 correspondence to the editor: Claudia Cetean, Robertson Ltd. (UK), Tyn y Coed, Llandudno, North Wales LL30 1SA, UK, or by email to newsletter@tmsoc.org.

## Copy Date

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# Conference and Course Announcements



## The Micropalaeontological Society's Annual General Meeting 2015

<http://www.tmsoc.org>

### PRELIMINARY PROGRAM

**Monday 16<sup>th</sup> November:** The afternoon is dedicated to the importance of microfossils in fundamental and applied biostratigraphy, looking into biodiversity, evolution, geological indicators, as presented by the keynote speakers.

13.45-14.00: Welcome and opening of the TMS AGM 2015 by organisers

14.00-16.30: Keynote speakers (including coffee/tea break)

- **Phil Gibbard:** *Micropalaeontology and the Quaternary*
- **Vanessa Bowman:** *Unveiling biotic change in Antarctica during the Late Cretaceous and Paleogene – the big picture from detailed biostratigraphy and palaeoecology*
- **Mike Simmons:** *Stratigraphic Sudoku – Making the Most of Microfossils in the Middle East*
- **Simonetta Monechi:** *Calcareous nannofossils: a powerful tool for stratigraphic investigations*

16.30-17.00: Presentations by awardees

17.00-18.00: AGM and awards

18.00-19.00: Drinks Reception at the Foresight centre (sponsored by Petrostrat)

19.30- 23.00: Conference dinner at the Royal Liver Building

### Tuesday 17<sup>th</sup> November: Poster session and open talks on micropalaeontology

From 9.00 to 16.00: The day will comprise of talks (15 mins each) and poster presentations. Abstracts are invited across all aspects of micropalaeontology. Presentations are particularly encouraged from graduates and early career researchers.

**Travel bursaries of up to £100 are available for presenting students and early career researchers (<10 yrs from PhD).** Application details at [www.tmsoc.org](http://www.tmsoc.org).

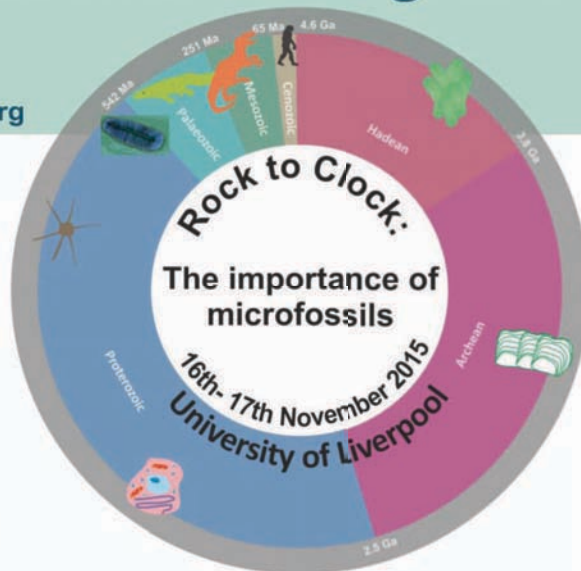
Registration is £15 for students/unwaged TMS members, £30 for Regular TMS members/unwaged or student TMS non-members and £40 for regular TMS non-members.

**Abstract deadline is the 30<sup>th</sup> September 2015.** For more info please contact [TMSAGM2015@gmail.com](mailto:TMSAGM2015@gmail.com) or visit [www.tmsoc.org](http://www.tmsoc.org)

**Registration\* for the TMS AGM 2015 and the conference dinner\* will close on the 15<sup>th</sup> of October 2015, 5pm.**

Symposium organisers: Fabienne Marret-Davies, Alan Bowden and Kirsty Edgar.

\*Registration fees and conference dinner will be refunded before this date if you wish/need to cancel it. No refund after the 15<sup>th</sup> of October.





# Lyell Meeting 2016

## Paleoinformatics: Synthesising data from the past to illuminate the future

9 March 2016

The Geological Society, Burlington House



### Convenors:

Ken Johnson (Natural History Museum)  
Jeremy Young (University College London)

### Further information:


For further information about the conference please contact:

Jess Aries, Conference Office, The Geological Society, Burlington House, Piccadilly, London W1J 0BG

T: 020 7432 0983

E: [jess.aries@geolsoc.org.uk](mailto:jess.aries@geolsoc.org.uk)

Web: [www.geolsoc.org.uk/lyell16](http://www.geolsoc.org.uk/lyell16)

 Follow this event on Twitter:  
[@geolsoc\\_lyell16](https://twitter.com/geolsoc_lyell16)

Synthesising palaeontological occurrence data and taxonomy into useable databases and web-systems will be one of the major challenges for palaeontology over the next couple of decades. On the one hand compiling palaeontological data and integrating it with other databases has immense research potential in fields from palaeoceanography and climate change through to palaeobiology. On the other hand there is an ever increasing expectation that information, on virtually everything, should be available electronically via the web. In both areas palaeontology is nowhere near as advanced as we might hope and there are major challenges for the future – not least since there are particular information technology problems in handling and standardising taxonomic and stratigraphic data.

The purpose of this meeting will be to bring together researchers who are playing lead roles in significant current initiatives and/or who have carried out particularly interesting individual work, with the objective of sharing experience and show-casing good practice for the large numbers of other workers who are interested to develop or improve palaeoinformatics within their own work.

### Call for Abstracts:

We welcome oral and poster abstract contributions for this meeting.

If you would like to be considered for a slot in the programme or a poster presentation, please send an abstract of no more than 400 words to Jess Aries ([jess.aries@geolsoc.org.uk](mailto:jess.aries@geolsoc.org.uk)), no later than Friday, 16 October 2015.





#### Organization Committee

##### **Local organizing committee (EPOC laboratory, Université Bordeaux):**

**Frédérique Eynaud, Laurent Londeix** (paleoclimatology team/ biostratigraphy and paleobiodiversity),  
**Yolanda Del Amo** (Ecology and Biogeochemistry of Coastal Systems), with the help of **Marie-Hélène Castera, Linda Rossignol, Ludovic Devaux** (webmaster)

**Honorary president: Jean-Louis Turon**

##### **French partners:**

- **Mohamed Laabir** (ECOSYM « Ecology of Marine Coastal Systems » Laboratory - UMR CNRS Montpellier II University, CC 093 – Place E. Bataillon – 34095 Montpellier cedex 05)
- **Rodolphe Lemée** (Observatoire Océanologique de Villefranche sur mer, Université Pierre et Marie Curie, Laboratoire d'Océanographie de Villefranche, CNRS UMR 7093 -BP 28, 06234 Villefranche-sur-mer – France)
- **Edwige Masure** (UMR CNRS/MNH/UPMC 7207 Centre de recherche sur la paléobiodiversité et les paléoenvironnements, Université Pierre et Marie Curie)
- **Aurélien Penaud** (Laboratoire Domaines Océaniques (LDO), IUEM, Place Nicolas Copernic, Technopôle Brest-Iroise, Université de Bretagne Occidentale, 29280 Plouzané)
- **Thomas Servais** (CNRS UMR 8217 Géosystèmes, Université Lille 1, UFR des Sciences de la Terre, 59655 Villeneuve D'Ascq cedex)

#### Sessions:

##### **I. MODERN DINOFLAGELLATES**

- 1.1 Systematic and molecular approaches
- 1.2 Dinoflagellate ecology
- 1.3 Toxic dinoflagellates : from cells to cysts
- 1.4. Marine to freshwater transition and gradient in the Dino's world
- 1.5. From theca to cyst: modern dinoflagellates as a sedimentary component

##### **II. FOSSIL DINOFLAGELLATES**

- 2.1 Quaternary and modern dinocysts in paleoceanographical studies
- 2.2 Phanerozoic time scales
- 2.3 Dinocyst systematic
- 2.4 Dinocyst preservation / carbon cycles
- 2.5. Integrated studies derived from "dinos": from recent past to modern times

#### Scientific Committee

People who already accepted to be part of the Dino11<sup>th</sup> International Scientific Committee:

- Elisa Berdalet** (Institut de Ciències del Mar de Barcelona, Spain)
- Kara Bogus** (International Ocean Discovery Program Texas A&M University, USA)
- Susan Carty** (Heidelberg University in Tiffin, Ohio, USA)
- Alain Côté** (Muséum MNHN de Paris, France)
- Anne de Vernal**, (GEOTOP, Université du Québec à Montréal, Canada)
- Mariane Ellegaard** (Department of Biology, University of Copenhagen, Denmark)
- Martin Head** (Department of Earth Sciences, Brock University, Canada),
- Mona Hoppenrath** (German Centre for Marine Biodiversity Research, Wilhelmshaven, Germany)
- Stephen Louwye** (Ghent University, Belgium)
- Fabienne Marret** (School of Environmental Sciences, University of Liverpool, UK)
- Kazumi Matsuoka** (Institute for East China Sea Research, Nagasaki, Japan)
- Antonella Penna** (Lab. of environmental Biology, University of Urbino, Italy)
- André Rochon** (Institut des sciences de la mer de Rimouski, Université du Québec à Rimouski, Canada)
- Sophia Ribeiro** (Geological Survey of Denmark and Greenland –GEUS, Denmark)
- Gerard Versteegh** (Organic Geochemistry Unit, Bremen University, Germany)
- Karin Zonneveld** (Department of historical geology/palaeontology, University of Bremen/MARUM, Germany)

More information and updates at: <http://www.laplif.org/dino11/calquedino11.htm>

# Obituary

## CHRISTOPHER KING 1943 - 2015

Dick Moody

Chris was born on 5th December 1943 and was 71 years old.

His family lived in West End, a village on the outskirts of Southampton, Hants where he attended West End Junior School, he passed his 11 plus exams there and then attended Barton Peveril Grammar School in Eastleigh until he was 16.

At Barton Peveril he successfully achieved passes at A level that enabled him to be accepted at Kingston College of Technology for a degree course in Geology.

He lodged away during his years at Kingston and stayed in the Kingston area for a number of years lodging with Tony and Sheila King in New Malden. Both Tony and Chris studied under Professor Ager at Imperial College and Chris completed his PhD thesis on '*The Stratigraphy of the London Clay Formation in the Hampshire Basin*' in 1991, under Professor Dick Moody at Kingston University. Tony and Chris were employed by PaleoServices Ltd, as micropalaeontologists for many years.

During his teenage years Chris had two main interests, which occupied most of his time, the first was Astronomy and the second fossils of all types including gigantic animals such as Dinosaurs.

Astronomy was his initial main interest and he would spend hours looking at the sky during the evening. Then the Fossils took over as the family went on trips to places like Lyme Regis where he could explore for fossils instead of just reading about them.

He was a meticulous collector who taught himself skills that would result in him becoming an internationally recognised geologist.

Whilst he was at Kingston he came home weekends to fossil hunt and collect specimens in any excavation or location he could find and this practice of coming home each weekend carried on until his sixties. During this time he assembled many samples that use to fill the attic and garage in his mothers house. The cleaning of the samples in the sink would often lead to the waste pipe being blocked from waste material surrounding the fossils to the consternation of all. This problem was also a familiar event in Montem Road, New Malden where the more and more samples for PalaeoServices marked the success of the Company.

After he left PalaeoServices Chris established himself as a stratigraphic consultant for oil industry in North Sea, North Africa, UK onshore, Venezuela



and many other areas, and on major engineering projects in the London area.

His research on Tertiary stratigraphy, biostratigraphy and depositional environments in NW Europe, USA, Egypt, Israel, Ukraine, Kazakhstan and Uzbekistan attracted hundreds of followers on-line through *ResearchGate* and *Academia*. Research on Jurassic stratigraphy in UK and the Cretaceous in Kazakhstan and Uzbekistan. He collaborated with colleagues in UK, Belgium, Denmark, Egypt, France, Israel, Netherlands, Norway, Russia and USA.

He was a former Chairman of the IGCP Regional Committee on Northern Paleogene Stratigraphy. Member of IGCP Paleocene-Eocene Boundary Working Group.

He was busy consulting for the oil industry and conducting fieldwork research projects in Egypt (Luxor and Fayum). Some of his greatest geomemories were generated on Joint Expeditions to Niger with colleagues from Kingston University and the Natural History Museum London.

He published over 70 scientific papers.

Chris leaves behind his wife Pat, 3 younger brothers, David, Robert and Raymond and his mother Joan who is 95 and in care.

His passing has come as a shock to us all. A funeral service was held at 2.30 pm on Thursday 29<sup>th</sup> January at St Mary and St Catherine Catholic Church, Victoria Grove, Bridport, DT63AD, followed by his burial and a wake at the Ropemakers Public House, Bridport.



## Meeting Reports

### TMSoc 2015 Foraminifera and Nannofossil Group Joint Meeting, Plymouth, UK

Cherry Newsam, UCL, UK

The Foraminifera and Nannofossil Groups held their twelfth joint meeting at Plymouth University hosted by Malcolm Hart and colleagues (Chris Smart and Deborah Wall-Palmer) on the 14-18<sup>th</sup> June this year. The conference got off to a great start with an icebreaker held on the 6<sup>th</sup> floor of the Rolle Building looking across brilliant views to the Plymouth Hoe and Plymouth Sound to the south and across to Bodmin Moor, which owing to bright clear blue skies we were able to appreciate whilst enjoying a wine reception with a delicious selection of canapés.

The first day of the conference had a full schedule with the focus for the first three sessions on modern benthic foraminifera and biomineralisation and the last session concentrating on planktonic foraminifera. Keynote talks were given by Bill Austin on 'The glacial climate pump: a new model

to explain elphidiid biogeography in the Northeast Atlantic', Steve Widdicombe from the Plymouth Marine Laboratory discussing their research assessing the impacts of high CO<sub>2</sub> on organisms and ecosystems and from Takashi Toyofuku, who despite being delayed, managed to arrive within his session and present an animated talk entitled 'Microscopic imaging approach of foraminiferal calcification environment'. Lunch and coffee breaks were filled with time to look at the range of posters, with a wide variety of topics across the 28 displayed. After a successful first day we all headed towards the lighthouse on the Hoe where the conference dinner was held at Rhodes @ the Dome, celebrity chef Gary Rhodes' restaurant, with a wall of long glass windows looking out across the harbour. An



Group photo

exquisite three course dinner was enjoyed by all and it was a great social occasion.

The second day of talks started with Mike Simmons kicking off the first session with a keynote talk on 'Larger benthic foraminifera from the Mesozoic of the Arabian Plate: stratigraphical distribution and palaeoenvironments' followed by a selection of palaeontological talks focusing on the Eocene, Cretaceous Paleogene boundary and Devonian. Magali Schweizer gave the next keynote speech focusing on *Ammonia tepida*, the Eurasian invasion of an Asian phylotype. The afternoon began with a move in to nannofossils, with Marie-Pierre Aubry giving the keynote talk on Discoasterales, setting the scene for the

Wednesday workshop, followed by nannofossils talks from the Paleocene Eocene thermal maximum, the Campanian/Maastrichtian boundary event and creating a new biostratigraphic framework from the Lower Jurassic using nannofossils. Two talks in the afternoon on benthic foraminifera ended the conference oral sessions.

The conference was closed by a presentation from Frans Jorissen showing us the plans and opportunities for next year's conference, which will be held Angers, France. There were a lot of new ideas for the conference, such as a day of talks for students and early career researchers and



Workshop

giving a larger focus to posters presented. The conference attendees were also won over by the suggestion of a wine tour! Malcolm Hart then presented the student poster prizes which were sponsored by the Geological Society of London and which was won by Amy Waterson from the University of Bristol for her poster 'Modelling environmental constraints on the biogeography of planktic foraminifera during the Late Holocene and Last Glacial Maximum' where she has been using ecological niche models to constrain key modern species distributions. A traditionally British dinner was held following the close of the conference of fish and chip with some sticky toffee pudding or

strawberries and clotted cream for dessert.

On the Wednesday we split into groups as there were three scheduled workshops being held; a Discoaster workshop for those interested in calcareous nannofossils, a workshop specializing on modern benthic foraminifera and an *eVolutus* workshop: Crossing Scales in Modelling of Foraminifera. These were all highly successful, with workshop reports to be found in each 'Group' section of the newsletter.



The following day, many conference participants headed off on the local fieldtrip to see mid Triassic continental sandstones at Budleigh Salterton and marine successions from the mid Cretaceous at Beer and the Lower Jurassic at Lyme Regis. The trip was fortunate to have gorgeous weather and the highlight was all the fossil hunting to be done, in particular the Echinodermata and of course the spectacular ammonites at Lyme Regis. Excellent septarian nodules were also to be seen. The fieldtrip rounded off a wonderful four days down in

Plymouth.

We would like to thank the sponsors, session chairs, poster judges and the organisers, Deborah Wall Palmer and Christ Smart, but particularly Malcolm Hart for his meticulous organization of the conference and a wonderful time in Plymouth.



*Fieldtrip*



*Plymouth Hoe*

## RCMNS Interim Colloquium - Rabat, Morocco

Jamie Boyd, University of Leeds, UK; Ángela García-Gallardo, University of Graz, Austria; Arjen Grothe, Utrecht University, Holland

Medgate is a Marie Curie Initial Training Network which is funded by the European Commission. It has been running since 2012 and is made up of 10 partners, combining experts in academia and the oil industry including nine PhD students and one post doc. As the group comes to the end of its research and funding, it is clear the project was a great success. One of the final goals of their training program was to organize a scientific conference. The RCMNS Interim Colloquium in Rabat, Morocco from the 5<sup>th</sup> to the 8<sup>th</sup> May 2015 became a big success and was attended by over 70 delegates! The meeting concentrated on Mediterranean gateways of the Neogene, particularly the western gateway, its closure and the effects and consequences of the Messinian Salinity Crisis. The meeting was split into five sessions, some of which included: processes and

patterns of past and present Mediterranean-Atlantic exchange; causes and consequences of past and present Mediterranean-Atlantic exchange; and past and present ocean gateways across the globe: what lessons can we learn from them? There were keynotes given for each session as well as other talks and posters including research we presented: “The influence of the Mediterranean Outflow water on the late Miocene-early Pliocene Gulf of Cádiz” (Ángela), “Responses of dinoflagellate cysts to Neogene ocean gateway closures in the Mediterranean Sea (Jamie) and “Strontium isotopes and dinocysts as tracers for Late Miocene connectivity of the Eastern Paratethys and the Mediterranean Sea with global ocean” (Arjen). Here there is a summary of



*The Ain el Beida and Loulja sections from the mid conference field trip*

our particular research:

Ángela: “My research as a PhD student at the University of Graz is focused in the identification and evaluation of paleoceanographic consequences of the initial Mediterranean Outflow in the Gulf of Cádiz (Late Miocene - Early Pliocene). For this purpose, I am focused in the micropaleontological labor, working on the identification of benthic foraminiferal species from IODP Site U1387 (IODP Expedition 339) as exceptional proxies for the identification of bottom

water conditions such as trophic stages, oxygenation levels and water ventilation. The first results provide signs of ecological changes that may be related to the opening of the Gibraltar Strait and a possible exchange of Atlantic and Mediterranean waters.”

Jamie: “My PhD at the University of Leeds uses dinoflagellate cysts to evaluate the evolution of ocean currents and climate over the Neogene. It is a project with a global



outlook which is achieved by collecting and collating previously published literature. More recently I have been focusing in on the Mediterranean, looking to see what changes took place to dinoflagellate cyst assemblages and whether or not they can be related to gateway changes. I am also going to look at these questions using new primary data which I have collected from Cyprus.

Arjen: "I'm a PhD student at Utrecht University. My project "Practice" (Paratethys Retreat And Causes: Timing & Implications for Climate and Environment) is primarily focused on determining what happened during the Messinian Salinity Crisis (MSC) in the adjacent Paratethys Sea (e.g. Black and Caspian seas). To get some more insights in the events of the Paratethys, I make use of two microfossil groups: dinocysts and ostracods. I primarily use dinocysts to date and and correlate different sites, while I measure strontium ratios on ostracods to reconstruct the connectivity of the Paratethys."

The food was really fantastic with a hot buffet for lunch every day and a really superb conference meal of a traditional Moroccan feast that took place

in the amazing conference hotel of La Tour Hassan. We were also treated to a mid-conference field trip to the Ain el Beida and Loulja sections where we (with help from the field trip leaders) interpreted what the different colour and thicknesses of the beds meant and how we could use that information to date them (cyclostratigraphy). There was also a two day field trip after the conference where participants were able to investigate the Neogene sedimentary record of Mediterranean-Atlantic exchange through the western Rifian Corridor. This marine connection linked in the past the Atlantic Ocean with the Mediterranean Sea through northern Morocco. Except for the very hot temperatures, up to 45 °C, the post-conference fieldtrip was also a great success with some spectacular outcrops and fruitful discussions.

All in all it was a brilliant conference with amazing science, a wonderful setting, great people and great food. We would just like to take this opportunity to thank the organisers, but also TMS for the provided bursaries that enabled us to attend this meeting. Thank you so much, it is really appreciated.



*The conference group photo at La Tour Hassan*



*Some of the excellent food we had at the conference meal*

## Micropalaeontology at Lyme Regis Fossil Festival (1-3 May 2015)

Tom Dunkley Jones, University of Birmingham, UK

For a second year The Micropalaeontological Society (TMS) ran a very successful public engagement activity at the Lyme Regis fossil festival over the May bank holiday weekend. A total of sixteen helpers assisted at the stall over the weekend, from geology undergraduates to the TMS Treasurer, including a large student contingent from the University of Birmingham MSc in Applied and Petroleum Micropalaeontology. Although the weather was not quite as stunning as 2014, the exhibition area was still packed on all three days, keeping our hands-on micropalaeontology exhibition busy throughout. The Friday was focused on quick-fire demonstrations to primary school groups, with stalwart efforts to give an interactive explanation of the marine food chain and the role of microfossil groups within this, in under five minutes. Picking brushes and microscopes survived the activities of many small hands, giving the children an opportunity to pick some "proper" fossils! Activities for the general public continued on Saturday & Sunday including the full cycle of microfossil extraction and preparation from raw sediment, observation, identification and picking.

On Saturday evening Tom Dunkley Jones gave one of the Festival's public outreach lectures, "*Fossils from the Deep*", presenting the history of scientific ocean drilling and the place of micropalaeontology within this. The talk ended with a live video link and question and answer session with James Bendle, currently a senior scientist aboard the Integrated Ocean Discovery Program drill-ship, the JOIDES Resolution (JR) in the Arabian Sea (Expedition 355). The whole "live link" process was given an added excitement by an enforced radio silence on board the JR, up to minutes before the link, while they used radio-detonated explosives to break a section of stuck drill pipe. James appeared on screen just as we were giving up hope, and had a good story to tell.

Thanks to TMS, GT Vision and the Lapworth Museum for support, and to all the TMS volunteers.



*The Micropalaeontological Society stand at the Lyme Regis Fossil Festival, with GEES MSc students Ed Young, Sam Morrison, Rosemary Jenkins and Claire Noble working through the hands-on microfossil preparation and observation activity*



## XIV InterRad on Fossil and Recent Radiolarian, Antalya, Turkey

U. Kagan Tekin, Hacettepe University, Turkey

The fourteen InterRad Conference on Fossil and Recent Radiolarians met in Antalya, Turkey, on March 22-26, 2015. Before the congress, a four day excursion was organized to the Karakaya Complex and to the Izmir-Ankara Suture Belt in central and western Turkey; 14 people attended. During this trip, many well exposed radiolarian-bearing sequences have been visited in 8 different stops.

A total of 93 participants attended the Conference, from 19 different countries and they discussed many topics about radiolarians and related subjects. The Conference included the following five sessions: a) Taxonomy, systematics and phylogeny of radiolarians (Conveners: Paula Noble and Nikita Bragin), b) Recent advances in radiolarian biostratigraphy (Conveners: Rie S. Hori and Taniel Danelian), c) Radiolarians in geodynamics (Conveners: Peter O. Baumgartner and Marco Chiari), d). Reconstruction of paleoenvironmental conditions and detection of climate changes through time using radiolarians (Conveners: Giuseppe Cortese and Qinglai Feng), and e) Biological and ecological characteristics of recent radiolarians (Conveners: Demetrio Boltovskoy and Atsushi Matsuoka).

A total of 102 abstracts (59 for the oral sessions

and 43 for the poster session) were presented at the conference, signed by 225 contributors. All the abstracts were published in the newsletter (Radiolaria 35, March 2015).

During the mid-conference excursion, we visited some outcrops where the Cenomanian/Turonian Anoxic Event in the Doyran Section is exposed, west of the Antalya city.

The "Best student talk award" was given to Kristina M. Pascher (GNS Science, New Zealand); for her talk entitled "Expansion of Southern Ocean radiolarian fauna linked to a late Eocene cooling event". During the general assembly of this meeting, the association decided to celebrate the next Conference in Japan in 2017 and the subsequent one in Slovenia in 2020.

After the congress, 13 people participated to the four-day excursion to the Antalya nappes, and visited sequences with rich and diverse radiolarians of Triassic to Cretaceous age, in southern Turkey.



*Participants of the XIV InterRad at the Crowne Plaza Antalya*

# The Micropalaeontological Society News

## Report from the Secretary

Phil Jardine

Summer may be in full swing, but I can't help but look forward to the autumn, what with another TMS Annual Meeting on the horizon. This year's meeting will take place at the University of Liverpool on 16<sup>th</sup> and 17<sup>th</sup> November, and is being organised by Fabienne Marret-Davies, Alan Bowden and Kirsty Edgar. The opening symposium has the theme of 'Rock to clock: the importance of microfossils', and Phil Gibbard, Vanessa Bowman, Simonetta Monechi and Mike Simmons are confirmed as speakers so far. This will be followed by society business (including awards and elections), a drinks reception and the Annual Dinner. The second day will consist of oral and poster sessions, with presentations open to all conference delegates and on any aspect of micropalaeontology. Further details will be added to the TMS website ([www.tmsoc.org](http://www.tmsoc.org)) as they become available, and I dare say I'll be sending out the odd informative email as well.

### Alan Higgins Award

The Alan Higgins Award for Applied Micropalaeontology is given to a young scientist, less than 10 years from graduation, in recognition of a significant record of achievement in the field of applied and industrial micropalaeontology. This year we're very pleased to be giving this award to Tom Hill, both for his use of micropalaeontology within archaeological studies, and his work facilitating industry-academic collaborative use of the NHM micropalaeontology collections. This will be awarded at the AGM in November.

Nominations for the 2015 award should be sent to the Secretary by 28th February 2015, using the appropriate form available from the TMS website: <http://www.tmsoc.org/awards/>.

### Charles Downie Award

The Charles Downie Award is an annual award made to a member of the Society who, in the opinion of the Committee, has published the most significant paper in any journal based on their postgraduate research. This year the incredibly high standard of the nominated papers means that the committee is in the happy position of awarding two Charles Downie awards. The committee will therefore award the 2015 Charles Downie Award (best paper published in 2014) to both Katy Prentice and Manuel Weinkauf at the AGM this

November, for the following papers:

Prentice, K., Dunkley Jones, T., Lees, J., Young, J., Bown, P., Langer, G., Fearn, S., EIMF. 2014. Trace metal (Mg/Ca and Sr/Ca) analyses of single coccoliths by Secondary Ion Mass Spectrometry. *Geochimica et Cosmochimica Acta*, **146**, 90-106.

Weinkauf, M. F. G., Moller, T., Koch, M. C., Kulera, M., 2014. Disruptive selection and bet-hedging in planktonic Foraminifera: Shell morphology as predictor of extinctions. *Frontiers in Ecology and Evolution*, **2**, 64. doi: 10.3389/fevo.2014.00064.

Nominations for 2016 (best paper published in 2015) should be sent to the Secretary by 28<sup>th</sup> February 2016.

### TMS Student Awards

TMS Student Awards are given to those nominated for their outstanding performance on one of our TMS-approved micropalaeontological courses, and consist of a year's free membership. So far this year we have made 9 awards to outstanding undergraduate and Masters students: Katharine Acheson (University of Southampton), Sandra de Castro (Universidad del País Vasco), John Crowe (Cardiff University), Charlotte Fielder (University of Portsmouth), James Foey (University of Keele), Jonathan Hall (University of Leicester), Kate Newton (University of Birmingham), Runa Reuter (Universität Bremen), and Katleen Wils (University of Ghent / K.U. Leuven). Congratulations to them all.

The TMS Student Award scheme now has 19 approved micropalaeontological courses, and I encourage any TMS Members to consider nominating their taught micropalaeontological courses for the scheme to encourage their best students to continue with a micropalaeontological career.

### TMS Grants-in-Aid

This year the TMS committee decided to award five Grants-in-Aid for costs towards



attendance at specific micropalaeontological conferences/training opportunities. These were: Ulrike Baranowski (University of Birmingham), to attend the postcruise science party meeting of the Newfoundland Expedition 342 in Salt Lake City; Isabel Fenton (NHM), to attend and speak at a University of Southampton/FAPESP workshop and Evolution 2015 in São Paulo, Brazil; Anna March (QMUL), to attend and present at the European Ostracodologists' Meeting in Tartu, Estonia; Freya Mitchison (Cardiff University), to attend the 5th Polar Marine Diatom Workshop in Salamanca, Spain; and Nursufiah Sulaiman (University of Birmingham), to attend INA15 in the Philippines.

I would encourage all of our student members and early career researchers to consider applying for a Grant-in-Aid. Grants-in-Aid are awarded annually to help members of the Society who are students or early career researchers (within 10 years of obtaining their last degree) in their fieldwork, conference attendance, or any other specific activity related to their research which has not been budgeted for. Grants-in-Aid cannot be awarded for miscellaneous expenditure, neither can they be awarded retrospectively. A maximum of £500 can be awarded to each successful applicant. Awardees are expected to write a short report for the Newsletter once their grant has been used. Application forms can be downloaded from the website ([www.tmsoc.org](http://www.tmsoc.org)), or obtained from the Secretary. The next deadline is 28<sup>th</sup> February 2016.

**Please note that from 2016 onwards, the International School on Foraminifera in Urbino, Italy, will be funded via the TMS Educational Trust Fund, and will no longer be eligible for support via the Grants-in-Aid scheme. For further information on TMS Awards and Grants, please see the dedicated page on the website: <http://www.tmsoc.org/awards/>.**

### **GSL Online Bookshop benefits for TMS members**

TMS members can take advantage of various discounts and offers at the Geological Society

Online Bookshop (<http://www.geolsoc.org.uk/bookshop>):

#### **1. TMS member discounts**

As a TMS member you qualify for 50% off TMS books, and up to 40% off other GSL published books (but not books from other publishers). To get these discounts you'll need to register with GSL, and then register your affiliation to TMS, which is all explained in the Bookshop FAQs.

#### **2. Sale Events**

These occur several times a year, and sale prices are available to anyone (there are no further discounts for society membership). The remaining sale dates for 2015 are:

15<sup>th</sup> – 22<sup>nd</sup> September

10<sup>th</sup> – 24<sup>th</sup> November

To receive email notifications about forthcoming sales you can sign up for Bookshop emails at <http://www.geolsoc.org.uk/bookshop>, by clicking on the yellow 'Subscribe to the Bookshop Newsletter' box on the right hand side of the screen. You'll also receive notices of new books published (including any TMS books) and any special promotions.

### **Committee Vacant Offices**

At the 2015 Annual Meeting, the following TMS Committee positions will become available for election:

Treasurer

Special Publications Officer

Publicity Officer

Nominations for these positions should be submitted to the Secretary by 30<sup>th</sup> September 2015. Nominees, proposers and seconders should all be members of the Society. Those who consider standing for any of the offices are welcome to contact the Secretary or President for information on what duties these posts entail.

## **TMS Grants-in-Aid**

TMS Grants-in-Aid are awarded annually to help student members of the Society in their fieldwork, conference attendance, or any other specific activity related to their research which has not been budgeted for. Grants-in-Aid cannot be awarded for miscellaneous expenditure (e.g. slides, sample bags, sample preparation, laboratory costs, SEM photography or producing, photocopying, printing and binding of these), nor can they be awarded retrospectively.

A maximum of £300 can be awarded to each successful applicant. Awardees are expected to write a short report for the *Newsletter of Micropalaeontology* once their grant has been used. Application forms may be downloaded from TMS website or obtained from the Secretary.

**Deadline for application is 28th February 2016**

## ***The Brady Medal***

The Brady Medal is the highest award of The Micropalaeontological Society. It is named in honour of George Stewardson Brady (1832-1921) and Henry Bowman Brady (1835-1891) in recognition of their outstanding pioneering studies in micropalaeontology and natural history. The Medal is awarded to scientists who have had a major influence on micropalaeontology by means of a substantial body of excellent research. Service to the scientific community may also be a factor for consideration by the Award Committee. The medal was commissioned and was awarded for the first time in 2007.

The Medal is cast in bronze from original sculptures commissioned by The Micropalaeontological Society in 2007. The sculptor is Anthony Stones, Fellow of the Royal Society of British Sculptors and President (1999-2004) of The Society of Portrait Sculptors. The Medal is hand crafted by the leading sculpture foundry Pangolin Editions of Chalford, England.

Mechanism for making a nomination:

All nominations must be made on the TMS "Brady Medal" pro-forma which can be downloaded from TMS website. Nominations must have a Proposer and Seconder, both of whom should be Members of the Society and not be affiliated to the same institute as the person they nominate. Nominations should be made in strictest confidence and in no circumstance should the person nominated be informed. The completed nomination form should be returned to the Secretary of the Society. Nominations may be made at any time of the year.

## ***Charles Downie Award***

The late Charles Downie was one of the pioneers of palynology in the UK and a mentor who guided the thinking and development of a large number of postgraduate students who passed through the University of Sheffield. Through the efforts of former colleagues at Sheffield, a permanent memorial has been established to recognise Charles' contribution to micropalaeontology.

An annual award will be made to The Micropalaeontological Society member who, in the opinion of The Micropalaeontological Society Committee, has published the most significant paper, in any journal, based upon his or her postgraduate research.

An award of £200 will be made for the best paper published during 2013 and will be presented at The Micropalaeontological Society AGM in November 2014. Nominations for the best paper published in 2013 should be submitted to the TMS Secretary by 28th February 2016.

## ***Alan Higgins Award for Applied Micropalaeontology***

Alan Charles Higgins (1936–2004), a British micropalaeontologist and expert on conodonts, made major contributions to Paleozoic biostratigraphy and helped firmly establish the value of micropalaeontology in hydrocarbon exploration. He was a founding member of TMS, its past Chairman and Honorary Member. The award of £300 is given to a young scientist, less than 10 years from graduation, in recognition of a significant record of achievement in the field of applied and industrial micropalaeontology, as documented by publications, software, patents, leadership or educational activities. The award was established with the help of Alan's family and friends, to commemorate his contribution to micropalaeontology and encourage young researchers in the field. It is presented in person at the Society's AGM in November. The first award was made in 2010.

Nominations can be made by any TMS member using the nomination form available on the website or from the Secretary, and sent by the end of February of each year to the Secretary of TMS. The nominees need not be members of TMS. The award is normally given each year, resubmission of unsuccessful nominees is possible.



## Committee Vacant Offices

*At the 2015 AGM, the following TMS Committee positions will become available for election:*

### **Treasurer**

### **Special Publications Officer**

### **Publicity Officer**

Nominations for these positions should be submitted to the Secretary by 30th September 2015. Nominees, proposers and seconders should all be members of the Society. Those who consider standing for any of the offices are welcome to contact the Secretary or President for information on what duties these posts entail.

### **Treasurer's report**

Jeremy Young

### **TMS TREASURER ROLES**

Having been TMS Treasurer for nearly 7 years it is time I stopped doing it and so we need to find someone good to take it on. It is a responsible role, but also a rewarding one, the TMS finances are in decent order, and there are no major challenges looming. These notes are meant to give an idea of what is involved, obviously I would talk a new Treasurer through everything in more detail and support them as they took on the role.

#### **1. Income**

*Membership* - membership income is the main source of finances for TMS, this is handled by the membership secretary, the Treasurer only needs to monitor and review the income. (NB Currently credit card payments are made via a PayPal here terminal operated by the treasurer but that is not a definitive long term arrangement)

*Sponsorship & advertising* - the Treasurer sends invoices as required and checks their payment. (predominantly payments are made by bank transfer)

*Royalties* - paid automatically

*Gift Aid* - periodically (every 2-3 years) the treasurer needs to prepare a Gift Aid claim - about 1 days work.

*AGM and meeting registration* - Treasurer liaises with meeting organiser and webmaster to set up

payment via the website into the TMS Paypal account and forwards email notifications of payment tot the meeting organiser

#### **2. Expenditure**

*Committee expenses* - committee members send expenses requests to the Treasurer who checks them and makes payment via bank transfer (UK) or Paypal (preferable for other currencies).

*Grants in Aid, sponsored speakers, affiliations to other organisations, meeting sponsorship, publicity expenses, 3rd party insurance, etc.* - Treasurer makes payments as agreed by the committee, and handles correspondence related to these

*AGM and meeting expenses* - Treasurer monitors budget for such meetings and agrees with the organisers a system for either paying invoices directly or transferring registration funds to the organiser.

#### **3. Reporting and budgeting**

*Start of year budget* (Feb committee meeting) - the Treasurer sets a budget for the committee based on the income received in the previous year and likely expenditure, highlighting areas for discretionary spending.

*Monitoring* - through the year the Treasurer records expenditure and expenditure commitments vs. the budget and reports

back to the committee (June & Nov meetings). He also provides an opinion on the affordability of any proposed expenditure.

*Annual reports* - at end of year the Treasurer produces summary reports recording income and expenditure. This involves summarising transactions from both Paypal and bank accounts and resolving these against records of expenditure and income. Typically about 2 days work.

#### **4. Committee Responsibilities**

The Treasurer is one of the three main officers of the society, with the President and Secretary. It is highly desirable that they attend all committee meetings (March, June, November) - and meeting dates are arranged to allow this. Likewise they are expected to be available to comment via email on TMS matters through the year and generally to play an active role in running the society.

#### **5. Treasurer of the TMS Education Trust**

The TMS Treasurer is currently also Treasurer of the Education Trust. It is not essential that these roles are combined but it seems sensible since (a) the TMS Education Trust does not have an independent bank account (TMS has three linked accounts with Barclays, one of which is used for the Education Trust). (b) The Treasurer acts as a council representative on the Education Trust board. (c) Having one person responsible for both minimises potential problems due to people asking for funding from both TMS and the Education Trust. Responsibilities include sending invoices, making grant payments and participating in trust discussions (predominantly by email). Fund raising is primarily the responsibility of the Chair of the trust, not the Treasurer.

### **MORE GENERALLY....**

#### **Level of work**

There is a background level of an hour or two a week, plus attendance of three meetings a year, about 2 days work for preparation of the accounts. Running finances for meetings and the AGM can be time consuming.

#### **Accounts system**

The system I use is to have parallel paper and computer. I maintain a folder of paper documentation with separate income, expenditure and pending sections. For example when a payment request is received this is printed out and put in the pending section, when it is paid this record is initialled and the date and means of payment written on it and it is filed in the expenditure section. Similarly when an invoice is sent a copy is placed in the pending section and the dates of any reminders are written on it. When it is paid this is noted on the paper record and it is

transferred to the income section. In parallel, transactions are periodically copied from bank and paypal records into spreadsheets and annotated to ensure all transactions are understood and correlate with paper records.

I find this mixed paper/electronic system is efficient to use on a day to day basis and contains enough redundancy of information for me to reliably trace all transactions and produce accurate accounts.

#### **Attractions of the post**

- You play a major role in the TMS, working for micropalaeontology and with leading micropalaeontologists.
- Our meeting support, grants in aid and awards do real good and people appreciate it.
- People are always polite and grateful when you give them money.
- Being a treasurer is primarily a reactive task and more of a harmless hobby than a major chore.

#### **Job requirements**

Nerdy compulsion to put things in order and sort things out. Decent level of IT skills (happy to play around with numbers in Excel, use online banking, filter emails, etc.).

Do I need to be UK based? Meetings are held in the UK and the bank accounts are with a UK bank. however with internet banking it is not essential, and so long as you were able to travel to London reasonably economically for meetings then the Treasurer probably does not need to be UK-based.



**Publicity Officer's Report**

Tom Hill

The TMSoc micropalaeontology community has continued to grow through various social media groups. At the time of writing the official TMSoc Facebook page had over 740 followers, with the Twitter account growing to 300 followers. All TMSoc led and co-funded activities are advertised and promoted through these networks, ensuring the society is being promoted globally.

In the coming months we will begin the 2015 TMSoc Image Competition, in the hope of improving on the immense success experienced last year. The 2014 Image Competition received over 120 high quality microfossil image submissions. In addition, the 2015 calendar that was produced to display the 12 winning images was sold out. Please keep an eye out for announcements regarding the competition, and make sure you have a few nice images ready for submission! As with last year, the winners will be

announced in advance of the November AGM being held at Liverpool, and Calendars will be made available to order online and as well as at the AGM (assuming they aren't sold out in advance!).

Can I remind all those fellow micropalaeontologists planning on hosting TMSoc-supported events/conferences/outreach activities that we have TMSoc publicity banners available, in addition to publicity flyers to give away in conference packs etc. Similarly, please get in touch if you wish to take advantage of opportunity to publicise these events through Facebook/Twitter.

**Membership Secretary's Report**

George Swann

**We welcome the following who have joined the society in 2015**

Agnes Weiner  
Amra Kujundzic  
Amy Jones  
Andrea Kourgli  
Andrew Bond  
Axel Banks  
Babette Boeckel  
Celestine Nwojiji  
Christof Pearce  
David Gold  
Eleanor Holder  
Elizabeth Brown  
Francisca Rosa  
Gareth Jones  
Henry Reay  
Jack Fenton  
James Williams  
Jutta Wollenburg  
Karolina Gadowska  
Katleen Wils

Kimberely Marsden  
Leah Cliff  
Lucy Roberts  
Madalina Kallanxhi  
Mauro Alivernini  
Montaha AlAmmar  
Nat Caughtry  
Natalia Walasek  
Nursufiah Sulaiman  
Olympe Delmas  
Oscar Romero  
Peter Lucas  
Roselis Ramírez  
Rowena Cameron  
Runa Reuter  
Sandra de Castro  
Serdar Uzar  
Tom Harvey  
Victoria Chraibi

## **TMS Student Awards**

In order to support the teaching of micropalaeontology at all BSc, MSc and equivalent levels, as well as to encourage and reward student engagement and achievement in this field, The Micropalaeontological Society has established TMS Student Awards. Each award consists of one year's free membership of the Society, including two issues of Journal of Micropalaeontology and Newsletter of Micropalaeontology, discount on TMS and GSPH publications, discounted registration fees at TMS specialist group meetings, and eligibility for awards and grants-in-aid.

The awards are given annually by tutors of registered micropalaeontology courses. Only one award per year per institution may be given. Nominating tutors must be members of TMS and in order to register a course they must submit a completed form to TMS Secretary who will confirm in writing that the given course is approved for the award. The Secretary will keep a list of registered micropalaeontology courses, conferring with the Committee when necessary. Course tutors of registered courses may then give the award at any time of the year on the basis of any criteria to students deemed to have achieved meritorious grades. The tutor reports the name and address of the awardee, as well as a brief statement on the criteria used to select the awardee, to the Secretary, who will collate a list of citations to be tabled each year at the AGM and printed in the Newsletter.

Each year, one TMS Student Award will be awarded in memory of Brian O'Neill.

Eleven courses are currently registered:

**EA2009 Microfossils**

School of Earth and Ocean Sciences, Cardiff University

**500016 Foraminiferen im Schleswigholsteinischen Wattenmeer**  
IFM-GEOMAR, Kiel

**Advanced Micropalaeontology**

Department of Geology, University of Leicester

**Microfossils, environments and time**

School of Ocean & Earth Science, University of Southampton

**Mikropaläontologie**

Institut für Geowissenschaften, Eberhard-Karls Universität Tübingen

**Micropalaeontology**

University of Bristol

**Micropalaeontology: Principles and Applications**

Keele University

**16199 Micropalaeontology**

Universidad del País Vasco

**GLY 5102 Marine Micropalaeontology / GLY 5104 Applied Micropalaeontology / GLY 5207 Case Histories in Marine Micropalaeontology / research project involving micropalaeontology**

Environmental and Marine Masters Scheme in the Faculty of Science, University of Plymouth

**ESCM 320/440 Micropalaeontology**

School of Geography, Earth and Environmental Sciences, University of Birmingham

**Introduction to Micropalaeontology**

Masters in Geology, University of Ghent – K.U. Leuven



**TMS Student Awards**

*Information for Tutors: In order to register a micropalaeontology course at your institute, please fill in the form below and send it to TMS Secretary. You only need to do this once, unless the course has changed or you wish to report a different course for the award scheme. Tutors are welcome to submit the form electronically.*

**TMS Student Award – Course Registration Form**

Nominating Tutor:

TMS Membership Nr:

University/Higher Education Institution:

Course Name:

Course Description (level, number of students, hours of instruction etc.):

Date:

*Please return by mail or electronically to TMS Secretary*

The Micropalaeontological Society  
<http://www.tmsoc.org>

Registered as a Charity No 284013

## TMS Grant-in-aid Reports

### 5<sup>th</sup> Polar Marine Diatom Workshop, Salamanca, Spain 19 – 24 July 2014

Freya Mitchison, Cardiff University, UK

I am a first year PhD student at Cardiff University and was lucky enough to receive a TMS Grant-in-aid to support my participation and presentation of a poster at the 5<sup>th</sup> Polar Marine Diatom Workshop, held this year at the University of Salamanca, Spain, from 19-24<sup>th</sup> July. My research is focused on the response of Southern Ocean diatoms to major Cenozoic climatic transitions, particularly the Mid Miocene Climatic Transition at c.14 Ma. I was hoping the workshop would allow me to familiarize myself with other current work within the diatom community that might relate to my research, e.g. at similar time periods and/or locations, as well as meeting and making contact with other students and experts in the field. More specifically, I was hoping to pick up some tips on distinguishing between the diatom species in the assemblages I work on, and to improve my understanding of where and when these species occur.

Luckily the workshop fulfilled my expectations, and I really enjoyed spending a week in the picturesque and balmy city of Salamanca! We had

daily microscope sessions (during which we were each given a set of microscope slides and taxonomic notes to take home), as well as talks and computer-based workshops covering the spectrum of polar marine diatom research from the evolution of the *Thalassiosirales*, to the use of diatom isotopes and assemblage transfer functions, to modern Arctic phytoplankton biogeography. This allowed me to improve my understanding of the wider field into which my research fits, and to appreciate the direction(s) of future research.

Of particular relevance to me was a microscope session by Fumio Akiba on the *Denticulopsis* and *Thalassionema* genera, which frequently occur in the assemblages I work on. I picked up some invaluable tips on distinguishing between species, and advice as to how to best go about quantifying the species within the assemblages. Raffaella Torlotti's session on diatom biostratigraphy



Our fantastic host María Ángeles Bárcena addressing the group before Micheal Kloster's workshop on the SHERPA imaging program



at the Eocene/Oligocene transition also proved very useful for me because she is using material from a core I am also working on, so it was a fantastic opportunity to compare and contrast our assemblages and to discuss the wider picture of how our research fits together into the wider story of Cenozoic diatom evolution in the Southern Ocean.

All students presenting posters were also asked to give a summary of their research to the group. As one of the first times I have presented my work to an external audience, this proved a great opportunity to get feedback and comments and to discuss ideas for future lines of inquiry, as well as to receive confirmation and encouragement that

the idea and strategy behind my project is solid. After listening to David Harwood's talk on the evolution of the *Fragilariopsis* group I have also decided to look more closely at this subject since some interesting *Fragilariopsis* species appear in my assemblages, with a view to constraining their Cenozoic evolution and the ecology of the extinct species. Most importantly, I made some great contacts and had offers of assistance should I need any help as my project progresses. Overall attending the workshop was a great experience and I am very grateful to The Micropalaeontological Society for the opportunity!



*A microscope session*



*A group photo during a visit to a vineyard outside Salamanca (we didn't spend too much time sampling the delicious Spanish wines, honest)*

## Report of trip to Evolution 2015

Isabel Fenton , Imperial College London, UK

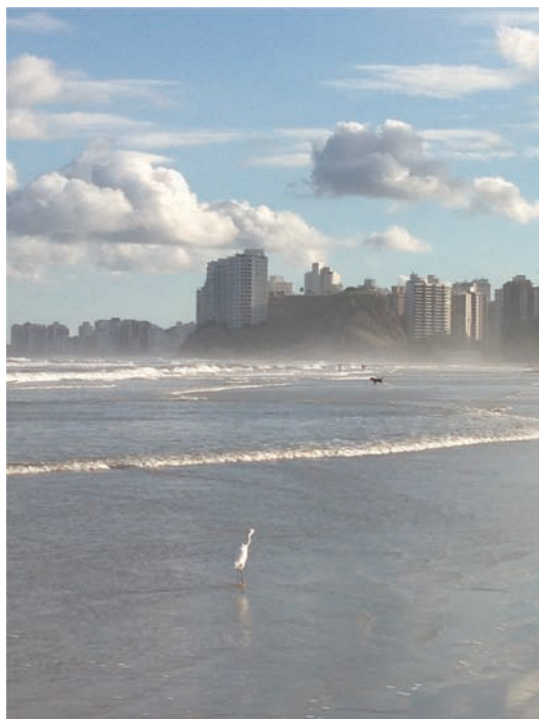
On the 22nd July I boarded a flight to the city of São Paulo in Brazil. This trip had two aims: initially I attended a workshop considering the 'Regulators of Biodiversity in Deep Time' before proceeding to the Evolution 2015 conference.

The workshop was jointly organized by the University of São Paulo and the University of Southampton, with participants travelling from across the world. The aim of this workshop was to review papers that are to be submitted for a special issue of Philosophical Transactions of the Royal Society. In the setting of the largest university in Brazil we met for two days of seminars and discussions. The talks covered a wide range of topics from the impact of supercontinent breakup on speciation to the genetics of adaptive divergence. Several of the talks focused on microfossils, with their excellent fossil record, as an important clade in which to study evolution. I gave a talk entitled "The impact of Cenozoic cooling on the diversity of two microfossil clades". Each day finished with a group discussion on what the regulators of diversity are, and how we can identify them. We also found plenty of time to sample a wide range of traditional (and less traditional) Brazilian food and drinks, including both chicken and palm hearts.



Following this meeting, we travelled to the beach resort of Guarujá in São Paulo state for the Evolution 2015 conference. This was attended by 1500 people, making it a much larger event. With multiple sessions running in parallel, at times there was too much choice, making it hard to decide which talks to go to. I attended some very interesting talks, as well as presenting myself. With more Brazilian delicacies in the evening there was no better place to discuss science than sitting on the beach listening to the waves and drinking caipirinhas.

Following these meetings I took a few days to travel to Ilha Grande, which has beautiful beaches (perfect for snorkeling) and some of the most pristine Atlantic rainforest left in Brazil. All in all this was a very interesting trip.



Guarujá



Ilha Grande



## The 15<sup>th</sup> International Nannoplankton Association conference in Bohol, Philippines

Nursufiah Sulaiman, University of Birmingham, UK

The International Nannoplankton Association conference is held every two years since 1985. And this year, the 15<sup>th</sup> International Nannoplankton Association conference (INA15) was held in Panglao, Bohol Island, Philippines on 7-16 March 2015. It was a very successful event where gathered most of nannoplankton workers, from academic and industry worldwide.

The conference started with two enjoyable pre-conference fieldtrips, the countryside tour and snorkeling trip, and ended with post-conference fieldtrip to Palawan Island. Philippines is located in Southeast Asia, and lies in western Pacific Ocean,

with abundant natural resources and great biodiversity. Thus it gave a really pleasant experience and exposure of geology and nature for those who joined the fieldtrips.

The INA15 technical sessions took place for 4 days, in South Palms Resort through oral and poster presentations by academic researchers and industry scientists. Together with presentations, 3 workshops which basically discussed about the biogeography, ecology, taxonomy and biostratigraphy of the current issues in this



*The INA15's group photo*



*The first pre-conference fieldtrip, countryside tour*

field were held as well.

The INA business meeting summed up the last day of technical session. During this meeting they announced the next location of 2017's INA conference in Athens and the changes of committee members.

This conference definitely gave a great opportunity for young nannoplankton workers to get involve in global networking and get a sense of further research idea from fellow specialist whilst they exchanged their experience and expertise.



*The post-conference fieldtrip to Palawan Island*



*The second pre-conference fieldtrip, Balicasag snorkeling trip*



## The 8<sup>th</sup> International School on Foraminifera, Urbino (Italy), 3<sup>rd</sup>–22<sup>nd</sup> June, 2015: forams and new friends

Salazar Ramírez, Roselis W., University Complutense of Madrid, Spain; Wilson, Jordan, Plymouth University, UK

June 3<sup>rd</sup> 2015 marked the start of the 8<sup>th</sup> course International School of Foraminifera in Urbino, Italy. For three weeks, the renowned event attracted attendees from global locations with a variety of backgrounds such as MSc/PhD students, established academics, geologists, biologists, geographers, industry experts and even hobbyists. The historical centre of Urbino, itself a UNESCO World Heritage site, represents a true “cradle of the Renaissance” where an artistic, architectural and historic treasure can be found. The Collegio Internazionale, of which served as the ISF base and housed all students, is situated in the centre of the town, close to the Piazza della Repubblica, where a variety of evening restaurants, eateries, bars and shops can be found.

The course structure was divided into 4 separate modules; a Foraminiferal Introduction, Larger Benthic Foraminifera, Smaller Benthic Foraminifera and Planktonic Foraminifera. Those interested could decide whether to make the entire course or any of the modules according to their objectives. Amongst these also, a field trip to various local outcrops and a day off were enjoyed. Each module included a series of lectures and practical sessions that enabled a chance to reinforce the taught content, ask lecturers

questions and exchange with other participants. The beginning of the course was marked with an icebreaker party, held at a local bar in the Piazza. The evening included plenty of pizza, pasta and wine, along with music, which was a wonderful welcome to Urbino and the course. This event provided the perfect opportunity to meet the organisers and students attending the course for the first time, allowing us to get to know one another prior to the first day of lectures.

### **Foraminiferal Introduction.**

An introductory day provided the opportunity to review recent developments in the geological timescale, methods and established useful software packages. We learned first-hand how foraminifera are used in biozonations. Day two covered a broad overview of the classification of foraminifera with a historical account of ideas since 1826 until today as well as morphology and evolutionary trends of these protozoa. We also were presented with foraminifera and calcareous nannofossils from the Lower



*Panoramic view of the historical center of Urbino from “Parco della Resistenza” (Image by Jordan Wilson)*

Jurassic Rosso Ammonitico, Umbro-Marchigiano unit in the Marche (Italy) as well as different methods for retrieving agglutinated and calcareous foraminifera and nannofossils. The following day was very practical as we studied the application of foraminifera in sedimentary sequences: checking the main faunal proxies characterizing depositional environments, how the sedimentary and biostratigraphic data are integrated into the study of depositional sequences and ending with case studies where we could put into practice what we have learned during the lectures.

Days four and five were devoted to review the classification of eukaryotes, the origin and biology of foraminifera, molecular phylogeny, identification of taxa using DNA barcoding, metabarcoding and environmental paleogenomics. We also had the opportunity to hear about the ecology and paleoecology of foraminifera, both of individuals and populations analysing the biotic and abiotic factors controlling their distribution, estimation of diversity and the taphonomic processes that can be recorded in the assemblages. To complete this module we studied the single-chambered or monothalamous foraminifera: their geologic record, habitat, morphotypes, test walls, its proportion in the sea and how they can be used as ecological indicators.

### **Larger Benthic Foraminifera**

Day six marked the beginning of the larger benthic foraminifera (LBF) short course. Firstly, definition,

biology and taxonomy of larger benthic specimens were covered before later observing existing classifications and the biostratigraphic framework. Day seven, led by Prof. Geraint Wyn Hughes, was of particular interest to those in industry. Late Permian LBF were the focus of the morning session, with particular reference to the Middle East and their application to the oil industry and biosteering. Following this, applied taught practical's were run focussing on Jurassic, Cretaceous and Neogene foraminiferal identification and palaeoenvironmental analysis.

The Cenozoic LBF systematic groups were learnt through day eight. Here, both morphologic and biodiversity changes of key species through the Palaeogene were studied, with specific reference to the Palaeocene-Eocene boundary. *Nummulites*, a unique group of LBF were a main focus, being introduced to us here and later studied further on day nine. Day nine began with an introduction to *Nummulite* banks, large features composed mainly of *Nummulites* and other foraminifera. The diversity, distribution and applications of recent LBF were presented to us in the afternoon before being provided the opportunity to identify key index species from a variety of thin section slides provided.

The final evening of the larger benthic



Group picture from the "Introduction to Foraminifera" module (Image by Mike Kaminski)



course was marked with a "Foraminiferal Party". This was yet another event organised by Mike and Fabrizio and provided all participants of the ISF the opportunity to present a short, 5 minute presentation on their past or current research topics/interests in a small, quiet, local park. Everyone found this very rewarding as well as being a wonderful opportunity to learn a little more about their peers research and current positions or jobs. Accompanying the outdoor presentations were again both pizza and wine, overlooking the town and surrounding countryside.

Following this, all enjoyed a well-earned day off, in which most took the opportunity to visit the nearby beaches of Pesaro and Fano a short drive away, prior to beginning the next short course.

### **Smaller Benthic Foraminifera**

On day eleven we started the module of smaller benthic foraminifera. Part of this day was devoted to the study of the morphology of the agglutinated foraminifera, the criteria used in their classification, wall structure, cement type and ecology. The 2010 classification of agglutinated foraminifera with updated information was also covered. Another part was focused on the miliolids: habitat, structure and composition of the wall, morphological characters, classification, ecology and evolutionary trends. During this day we also got the chance to be presented with a new conception of the foraminiferal macrotaxonomy which is based on the morphology of the test, whole plan of structure of the organism and its relationship to the function they perform.

During a new session, the calcareous benthic foraminifera were covered: references, classification, and ecology. We were taught about

an useful tool "Benthic foraminiferal morphogroups" or how the shape, function and microhabitat are related. This group can react to environmental changes and therefore are suitable as bio-indicators. Some case studies in this field were also presented. On day thirteen we examined the foraminiferal assemblages of the Lower and Upper Cretaceous, its relationship with paleoenvironmental parameters, biozonation schemes and their value within correlations. In addition, the behavior of benthic foraminifera regarding the event in the Late Cretaceous Tethys was explained. Another part was focused on the Paleogene foraminiferal assemblages, their association with depth, the paleoenvironmental turnover across this period and its effects on foraminifera faunas.

The lectures culminated with new insights into how the benthic foraminifera respond to paleoenvironmental parameters and its relation to climate history. We also learned about the drilling process, wellsite paleontology and the work of the micropaleontologist in this environment. In the afternoon, we had a special lecture by Rudolf Röttger who showed us his films about larger foraminifera and signed copies of his book "A Course in Protozoology".

**Field trip and social dinner:** to complete the smaller benthic foraminifera module, we went in a field trip to the region of Umbria-Marche Apennines (Italy). First we saw the Lower Jurassic "Rosso Ammonitico" materials and those who were lucky even collected some specimens of ammonites. Then we visited the Cretaceous-Paleogene succession in Contessa sections: the Paleocene-Eocene Thermal Maximum, the Eocene hyperthermals in the Contessa Road and the Oceanic Anoxic Event 2 (OAE2) or "Bonarelli" level from the latest Cenomanian at the Vispi Quarry in the Contessa Valley. Our last stop was at the K/Pg boundary in the Bottacione Gorge section represented by a thin clay layer and the first site where an Iridium anomaly was found. We also had some time to visit the beautiful town of Gubbio at the foot of Mount Ingino.

To conclude the fruitful field day we had a social dinner where we share with our fellow students and lecturers, tasted delicious Italian food and even prepare some choreographies.



*Roselis reviewing some specimens at the "Smaller benthic Foraminifera" module (Image by Anna Binczewska)*



Group picture at the K/Pg boundary near Gubbio, Italy (Image by Loren Petruny)

### **Planktonic Foraminifera**

The course began with several lectures covering the biology, ecology and diversity of this group. Its important role in biostratigraphy, the methods used for the study of population and its use as proxies of past ocean and climate. We particularly reviewed the planktonic foraminifera assemblages from the Oligocene-Miocene and Late Miocene-Pleistocene: main genera, biozonation schemes, bioevents and different lineages. In the afternoon we had some special lectures by Giles Miller (Natural History Museum, London), Loren Petruny (National Museum of Natural History-Smithsonian/Cushman Foundation for Foraminiferal Research) and Mike Kaminski (The Grzybowski Foundation) in which they gave us an insight on the organization, collections, references, grants and other valuable information about each of these institutions. At the end of the day we enjoyed an aperitif where at the same time Mike and Fabrizio presented the certificates to all attendees.

The last two days of the 8<sup>th</sup> ISF were dedicated to the study of the evolution of planktonic foraminifera from their first record on Late Jurassic until Neogene. The morphological features of the test and the structure of the wall are key aspects in this area and were analyzed in detail as well as the key

genera and species, biozonations schemes and evolutionary trends.

**Our thoughts.** We conclude the course with a mix of emotions; happy for all the experiences and lessons learned whilst nostalgic to say goodbye to our new friends. The International School of Foraminifera has left us with invaluable lessons, friendships and enhanced professional networks. It has also recharged us with motivation to continue working hard in our research and future study. We highly recommend this event to all foraminifera followers and encourage them to register on future editions of the ISF.

We are immensely thankful to The Micropalaeontological Society and the collaborating organisations for their financial contribution by granting us a TMS Educational Trust Award which made possible our participation in this training course. We extend our gratitude to Mike Kaminski (King Fahd University of Petroleum and Minerals) and Fabrizio Frontalini (Urbino University)—Scientific Directors and





*Graduation ceremony (Image by Loren Petruny)*

Coordinators of the 8<sup>th</sup> Course ISF– and to all the lecturers who gave us their knowledge and experience: Felix Gradstein (Natural History Museum of Oslo), Claudia Cetean (CGG Services (UK) Ltd.), Jeno Nagy (University of Oslo), Johann Hohenegger (University of Vienna), Jan Pawlowski (University of Geneva), Anna Sabbatini (Marche Polytechnic University), Cesare Andrea Papazzoni (University of Modena e Reggio Emilia), Antonino Briguglio (University of Vienna), Geraint Wyn Hughes (King Fahd University of Petroleum & Minerals), Valeria Mikhalevich (Zoological Institute RAS), Laia Alegret (University of Zaragoza), Danielle Foy (Wellsite geologist), Michal Kucera (MARUM & University of Bremen) and Maria Rose Petrizzo (Milano University).

Until next time!

## Specialist Group News

### ***Nanno News - updates from the TMS Nannofossil Group and the International Nannoplankton Association***

Cherry Newsam & Simon Cole & Jeremy Young

#### **INA15 - Bohol The Philippines**

Since the last newsletter the International Nannoplankton Association has held its 15<sup>th</sup> conference in Bohol, Philippines. We would like to thank the host Alyssa Peleo-Alampay and Allan Fernando and their vast network of dedicated students who put in so much effort and details into arranging an unforgettable trip for us all.

The conference itself was four days long, consisting of 40 talks and 40 posters with five keynote talks. There were 86 people in attendance from 23 countries. There were a wide variety of student presentations and posters with Blanca Ausín and Emilia Belia winning the student presentation and poster prizes, respectively. A highlight of the keynotes was a pair of presentations on the major new Cenozoic nannofossil zonation schemes developed by Isabella Raffi, Claudia Agnini, Jan Backman and colleagues. There was a general feeling that these schemes are a significant advance and should be widely adopted. Discussion on the schemes and plotting of new collaborative projects continued in the workshop sessions - where we had parallel sets of discussions on - Cenozoic biostratigraphy,

Mesozoic biostratigraphy and Extant Coccolithophore Biogeography.

There were also a vast number of social activities for us all to enjoy. There were two pre-conference day field trips the first to visit the island of Bohol's chocolate hills and tarsiers and the second a snorkeling trip - departing from the beach outside our hotel in a fleet of outrigger banca boats. The snorkeling trip was immediately followed by a spectacular icebreaker party on the beach. Following this a few days later the conference dinner on the beach was an even bigger success - including traditional dancers performing for us and with the opportunity for everyone to join in. Finally there was a post conference trip to the island of Palawan where we got a good overview of the geology of this allochthonous terrane, visited the famous underwater river caves and did some more snorkeling. If this all sounds a bit too much like a party it is worth remembering that the nannofossil community is scattered around the globe and a lot of the value of the conferences is the networking and informal discussions - and fieldtrips and beach hotels



INA 15 Group photo



are actually very good for this.

Finally, the INA society business took place as the conference came to a close including reshuffling of various posts - with Matt Hampton taking the position of treasurer, Sebastian Meier the position of membership secretary, and Juan Pablo Perez Panera has taken over as the emailing list coordinator. Also, Jamie Shamrock took up the post of editor of the Journal of Nannoplankton Research supported by an editorial committee of Jackie Lees, Richard Howe and Jeremy Young.

### **Discoaster workshop and the TMS Forum and Nanno Group Meeting**

The TMS Spring Foraminifera and Nannofossil Joint Meeting has just been held in Plymouth organised by Malcolm Hart. This was a two day conference with a detailed summary of the conference to be found in this newsletter. We were still lacking in numbers of nannofossil attendees at the conference, with only four talks including a key note talk and three posters, despite the attraction of the workshop (see below) at the end of the conference. We are constantly looking for new ideas to attract more nannofossil workers to this conference and an email to this effect was sent out to the Nannofossil Group on 23 September. If anyone has any ideas then please get in contact with us. Please click [here](#) if you didn't receive the email and let Simon or Cherry know if you would like to be added to the 'Nanno Group' email (this group was compiled from those who expressed a 'nanno' interest when joining the TMS).

Following the success of the reticulofenestrid workshop held by TMS/INA in January 2014, we organized a discoaster workshop which ran attached to the TMS Foraminifera and Nannofossil joint meeting. This was supported by financial sponsorship from TMS, INA, PetroStrat, Network Stratigraphic and CGG Robertson, for which we are sincerely grateful. It was well attended with 24 nanno specialists making the trip to Plymouth, including academics, many industrial workers, and

students.

To open the meeting we had five international guest speakers, Marie-Pierre Aubry, Claudia Agnini, Jean Self Trail, Mike Styzen and Jeremy Young. They gave talks in the morning giving a range of perspectives on discoaster taxonomy, including some thought provoking new interpretations by Marie-Pierre based on her new catalog, which she also showed us. The powerpoint presentations given by our guest speakers, are available on a webpage on the INA website: <http://ina.tmsoc.org/announce/discoasters2015/>. Following this, in the afternoon we broke into two groups to review Paleogene and Neogene discoaster taxonomy.

The Palaeogene group (comprising Claudia Agnini, Marie-Pierre Aubry, Jennifer Clayton, Simon Cole, Angela Fraguas, Victor Giraldo Gómez, Matt Hampton, Christian Joachim, Kayleigh Mills, Cherry Newsam, Lea Rausch, Jean Self-Trail and Peter Stassen) went through the list of Palaeogene discoasters on Nannotax in turn, discussing the important criteria for identification, associated images and notes on ranges. Although we had a good representation of the nannofossil community, we obviously would like to hear from anyone who has an interest and experience in discoaster taxonomy before going ahead with any suggested amendments from the working group. Therefore the notes resulting from the discussions in Plymouth will be added to the 'Comments' section for each species in question for open discussion to the community – these will be from 'Discoaster Workshop Palaeogene'. If you are interested, please take some time to look through the species and give us your opinions! NB To check for what comments have been made you can go to the recent comments page - <http://ina.tmsoc.org/>



*Discoaster Workshop*

[Nannotax3/ntax-recent\\_comments.php](#).

The Neogene group (comprising Babette Böckel, Jennie Bull, Marina Ciummelli, Kevin Cooper, Madalina Kallanxhi, Laura Pea, David Rutledge, Mike Styzen, David Winder and Jeremy Young) similarly discussed the Neogene taxa. In general our discussions were somewhat shorter than those of the Palaeogene group and we finished earlier - possibly because Neogene Discoaster taxonomy is better worked out, or the nature of the problems are better understood. Predictably the *D. quinqueringus* lineage was a major source of debate, but reasonable consensus emerged on the taxa which can usefully be recognized although there was continued debate on nomenclature and especially the use of the name *quintatus*. Again comments have been added to Nannotax and Mike Styzen's presentation covers the group, but some formal changes are also needed, so we are planning a short paper in the JNR.

### **Future Meetings**

#### **Geological Society of America (GSA)**

For the first time ever, the International Nannoplankton Association will have a booth at the Geological Society of America's National Meeting in Baltimore, Maryland (USA) from November 1-4, 2015. The booth will be located on "Paleo Alley" in the Exhibition Hall. Please feel free to stop by to see the new INA promotional video, a demonstration of Nannotax, copies of the Journal of Nannoplankton Research, and to talk to INA members about the organization. We hope to see you there!

#### **Jurassic Workshop**

During the INA Bohol conference there was a short workshop on Jurassic nannofossils and it was decided that it would be useful to have a proper workshop on them to synthesise recent developments of knowledge on Jurassic nannofossils and work toward revision of the Jurassic zonation. Emanuela Mattioli agreed to organise this and it is now timetabled for Lyon (Université Lyon 1) on Thursday and Friday 12 and 13 of May, with a fieldtrip on the Lagerstätte of La Voulte-sur-Rhône (Callovian) on Saturday 14 May. Please contact Emanuela by email ([emanuela.mattioli@univ-lyon1.fr](mailto:emanuela.mattioli@univ-lyon1.fr)) if you wish to be kept informed about this meeting.

#### **TMS Joint Foraminifera and Nannofossil meeting**

As mentioned above, we're always looking to attract more nannofossils workers to these events to address the imbalance of foram to nanno workers (sometimes up to 10:1). Simon and Cherry sent an email out to this effect on 23 September (link above and [here](#)). The next joint Foraminifera and Nannofossil meeting is

scheduled to be held at the University of Angers by Frans Jorissen in June next year. However, based on the feedback that we get, instead of joining the foram workers in Angers, we could potentially join the Jurassic meeting in Lyon in May. Please see the email for more details and send your thoughts to Simon and Cherry.

### **INA16, 2017**

Following the conference in Bohol, a trip to Europe will be in store for the next INA meeting with INA 16 to be held in the September of 2017 in Athens, Greece, hosted by Maria Triantaphyllou. This was the only offer put forward but we were happy to accept as she has organized excellent extant coccolithophore workshops in the past.

### **Nannotax update**

The Nannotax website has continued to develop over the past six months and is becoming an ever more widely used reference source. This was demonstrated during the discoaster workshop when it provided a useful framework for the discussions and in turn the workshop provided a range of suggestions both for correcting details of discoaster taxonomy and ideas on how the site should be developed. There have been two major areas where the site has been enhanced - improvement of the Farinacci catalog and incorporation of occurrence frequency data from the Neptune database.

### **Farinacci Catalog**

Sadly, Anna Farinacci of Roma University, one of the pioneers of nannofossil research, died on 23 February this year, at the age of 92. She was a fine nannofossil worker and teacher and also was responsible from 1969 to 1989 for compiling, at immense personal effort, a catalog of original descriptions of calcareous nannofossils (similar to the Ellis and Messina catalog of foraminifera). The printed catalogs have long been a mainstay of nannofossil research and recently Anna transferred copyright of the catalogs to the INA so we could distribute them on CD and use them online. They are now fully incorporated in the Nannotax system, as mentioned in the last newsletter. Through the work of another nannofossil specialist (who prefers to be anonymous) the catalog has now been extended with the addition of another 1200 taxa described since 1989. In addition the original catalog has been rescanned and run through optical character recognition software, so that the pages are



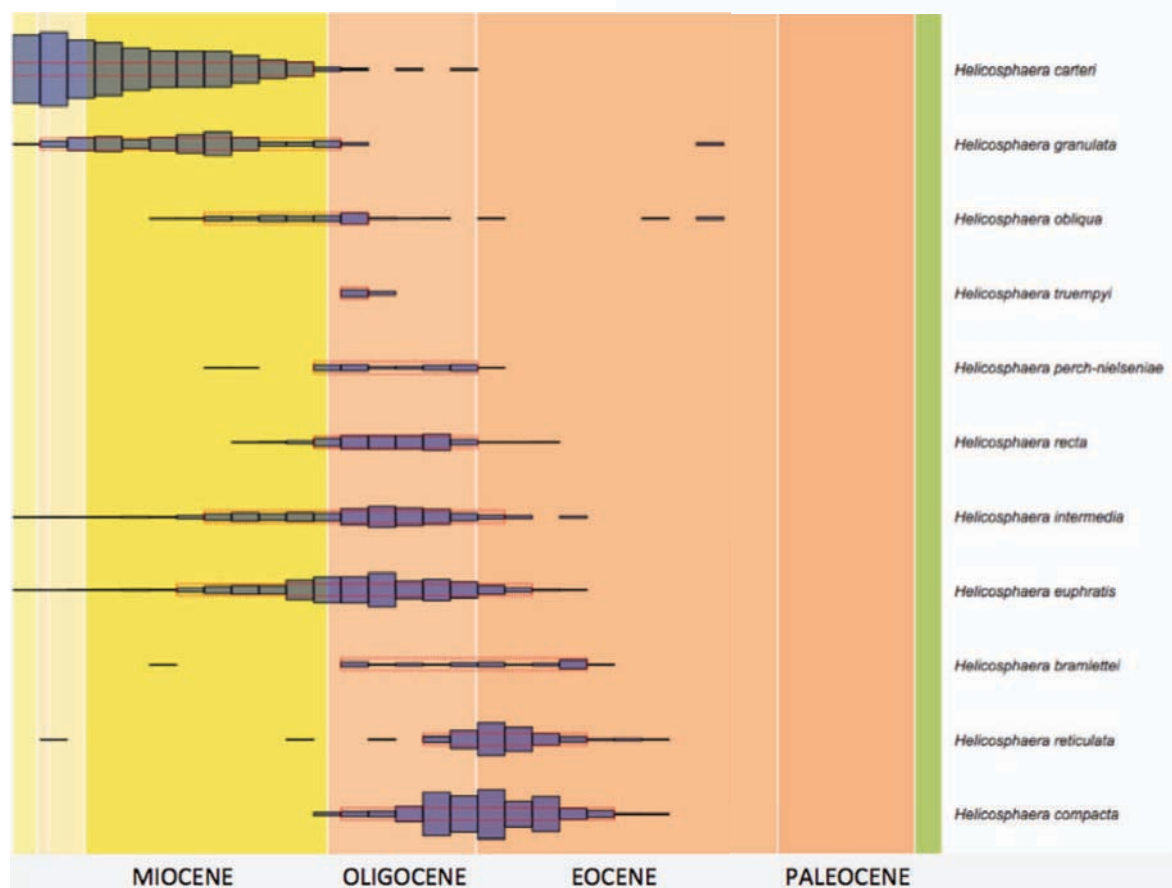
now presented on the website as PDFs with selectable text. Finally, we have made a major effort to increase links between the Farinacci and main catalogs with the objective of providing a modern interpretation for all described species in the catalog.

### Neptune Database

The Neptune database is a relational database of microfossil occurrence records from DSDP and ODP publications. It was produced by Hans Thierstein, David Lazarus, Cinzia Spencer-Cervato and colleagues at ETH-Zurich and has subsequently been implemented in various projects (Spencer-Cervato et al. 1999). It is currently being developed by David Lazarus, Haiko Paalike and colleagues, who have made a version available to us.

The database includes over 42,000 nannofossil samples and over 202,000 nannofossil occurrence records. So it is a very large data source, and

there has been significant effort to enhance its utility through production of uniform age models for each site and careful synonymising of taxa (for nannofossils this was done initially by Katharina von Salis with updating subsequently by ourselves - Jeremy Young, Paul Bown, Jackie Lees). For use in Nannotax we have derived a table of taxon occurrence frequencies at 2Ma intervals (i.e. for each taxon and time bin the proportion of samples in the database in which that taxon was recorded has been calculated). There are obvious limitations to this data, as discussed on the website, but it does provide remarkably informative overviews of the distribution of taxa - essential the occurrence frequency appears to be a rather good proxy of abundance. We have added plots of taxon abundance to individual species pages and there are also a couple of pages where you can make more interactive plots of groups of taxa.



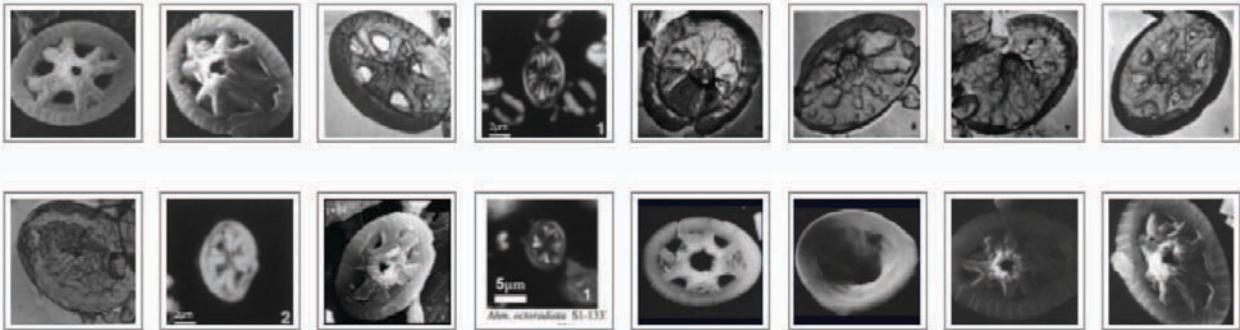
Example of a plot of multiple species ranges (generated from <http://ina.tmsoc.org/Nannotax3/ranges-neptune.php>)

**Ahmuellerella octoradiata**

**Ancestry:** Mesozoic -> Eiffellithales -> Chiasozygaceae -> Ahmuellerella -> Ahmuellerella octoradiata

**Sister taxa:** *A. alboradiata* *A. octoradiata* *A. regularis* *A. sp.*

**Diagnosis:** Murooliths with narrow rim and central area plate-like structure incorporating 8 near-axial bars.

**Nomenclature:**

**Citation:** *Ahmuellerella octoradiata* (Görka, 1957) Reinhardt & Görka, 1967 [Species]

**Basionym:** *Discolithus octoradiatus* Görka, 1957

**Synonyms:**

- *Zygothothus octoradiatus* (Görka) Stradner, 1963
- *Ahmuellerella limbitenuis* Reinhardt, 1964 (according to Verbeek 1977)
- *Eiffellithus octoradiatus* (Görka) Reinhardt, 1968
- *Vagalapilla octoradiata* (Görka 1957) Bukry 1969

**Forinacci catalog pages:** *D. octoradiatus* \* *A. limbitenuis* \*

**Diagnosis:** Murooliths with narrow rim and central area plate-like structure incorporating 8 near-axial bars.

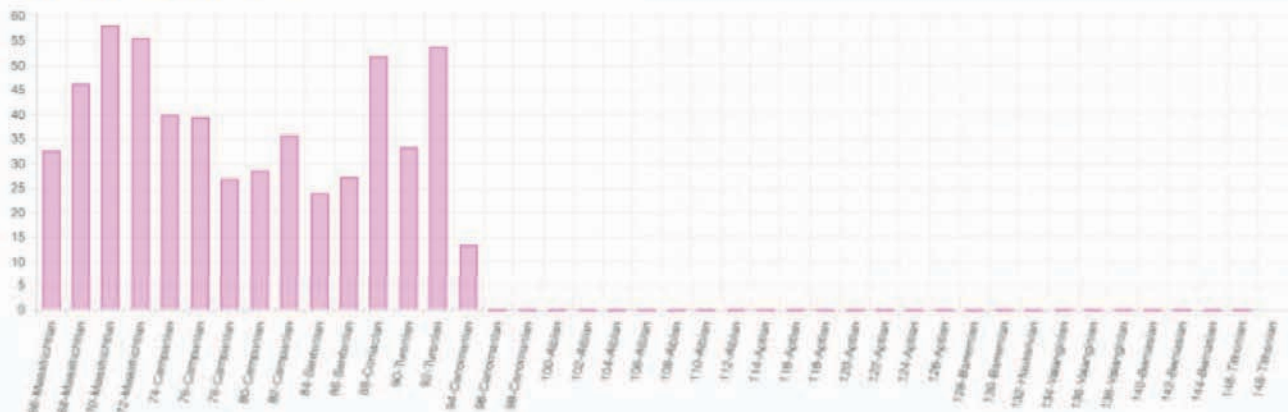
**Geological Range:**

**Last occurrence (top):** UC20a (69.00Ma). Data source: Burnett 1998

**First occurrence (base):** UC5b (94.20Ma). Data source: Burnett 1998

**Neptune occurrence frequency data**

Vertical axis percentage of [Neptune database](#) samples in the time bin which contain the taxon: *Ahmuellerella octoradiata*, synonyms included - *Vagalapilla octoradiata*; *Eiffellithus octoradiatus*;

**References:**

Görka, H., (1957). Les Coccolithophoridés du Maestrichtien supérieur de Pologne. *Acta Palaeontologica Polonica*, **2**: 239-284.

Reinhardt, P. & Görka, H., (1967). Revision of some Upper Cretaceous Coccoliths from Poland and Germany. *Neues Jahrbuch für Geologie und Paläontologie Abhandlungen*, **129**: 240-256.

Example of a Nannotax page with an occurrence frequency plot using Neptune data



## Palynology Group Report

Manuel Vieira & Matthew Pound

### Report of The Micropalaeontological Society Palynology Group Meeting 2015 at the Northumbria University, Newcastle

Following on from a highly successful meeting at the University of Birmingham (2014), The Micropalaeontological Society Palynology Group held their 2015 annual meeting in the Department of Geography at Northumbria University. The famous Newcastle sun shone on the one-day meeting that was themed "Biogeography, Biostratigraphy and Biodiversity". The meeting featured ten presentations from graduate students, post-doctoral scientists, academic and industrial palynologists. These talks showcased research from a great range of time intervals and locations, from a palynological study of pre-European societies in Amazonia by John Carson (University of Reading, UK), to Eutrophication and *Dissiliodinium giganteum* during the Middle Jurassic presented by Nickolas Wiggan (University of Cambridge, UK).

The meeting was opened by Jim Riding (British Geological Survey, UK) who presented the 2<sup>nd</sup> annual von Post Lecture. The talk was titled: *Is endemism really a big issue in Mesozoic dinoflagellate cysts - examples from the Mesozoic of Europe, the Americas and Australia* and provided an excellent opening to the Biogeography, Biostratigraphy and Biodiversity theme of the meeting. Jim covered the origination of the dinoflagellates in the Triassic and their responses to mass extinctions, climatic perturbations and shifting tectonic plates throughout the Mesozoic. Following this *tour de force* opening, the delegates retired for lunch at the aptly named *The Botanist*. Once all palynologists were fed and watered the afternoon sessions could begin. John Carson (University of Reading, UK) opened the afternoon with a presentation summarising what is known for Amazonian pre-European farming societies and the challenges in detecting agroforestry in the pollen record. Celestine Nwojji (University of Liverpool, UK) then presented an introduction to his PhD on the ecological functioning of zooplankton and phytoplankton during the early Cenozoic hyper-thermal events. Stephanie Strother (Northumbria University, UK) took us slightly younger with her new Oligocene palynological results from Wilkes Land Antarctica. Jamie Boyd (University of Leeds, UK) helped us climb the stratigraphic column into the Neogene and presented results from her PhD research on the diversity of dinoflagellates in the Mediterranean and Paratethys. Onema Adojoh (University of Liverpool, UK) finished this session with a talk on

the Quaternary vegetation of the Niger Delta.

Having negotiated ourselves up the geological timescale it was time for an afternoon break. Whilst enjoying a cup of coffee (or tea), the delegates had the opportunity to catch-up and browse the seven poster presentations by Northumbria University students and staff brought to the meeting. These covered Cenozoic palynology from the Southern high latitudes by Ulrich Salzmann, who also presented a poster on the challenges of Pliocene data – model comparisons. Matthew Pound presented a Pliocene pollen record from the Yukon, Canada. Stephanie Strother's poster reported on the use of fluorescence microscopy to detect reworking of palynomorphs over short geological timescales. Lesley Dunlop presented a geodiversity charter for England and Bronwen Whitney presented two posters on Pleistocene and Holocene palynology of South America.

The second part of the afternoon was opened by Nickolas Wiggan (University of Cambridge, UK) who presented the portion of his PhD focussed on Eutrophication in the Western Tethys during the Bajocian. Sina Panitz (Northumbria University, UK) showed her latest results from ODP 642 and how they have changed our knowledge of high-latitude Pliocene vegetation. Karen Halsall (University of Liverpool, UK) talked about Holocene fire dynamics from multiple sites across northern Europe and an unusual fungal spore that appears in ombrotrophic bogs following disturbance. Carlos D'Apolito (University of Birmingham, UK) presented some of his PhD results on the Miocene Pebas mega-wetland region of South America that clearly document multiple marine incursions. Keith Richards (Kra Stratigraphic Ltd., UK and University of Amsterdam, the Netherlands) presented the final talk of the day. His presentation on the palynology of the Caspian Sea provides compelling evidence for a Plio-Pleistocene Caspian – Arctic marine connection! Before closing the meeting a public vote was held for the best student presentation and the winner was Stephanie Strother (Northumbria



Group photo

University) for her presentation: Oligocene vegetation vs. Glaciers: the battle for land in East Antarctica. Her prize, a geological hammer USB stick, was kindly supplied by the Geological Society Publishing House. With the hard work done, the delegates decamped to a pub close to the train station. Food, drink and the excellent company was all enjoyed until gradually all the delegates had disappeared via road or rail.

Manuel Vieira (TMS Palynology Group Chair) and Matthew Pound (TMS Palynology Group Secretary) would like to thank all the speakers and poster presenters for communicating the results of their research activities, as well as Sina Panitz, Stephanie Strother and Ulrich Salzmann (Northumbria University, UK) for assisting with the organisation on the day. The Geological Society Publishing House and Taylor and Francis are both thanked for supplying free copies of *The Journal of Micropalaeontology* and *Palynology*, respectively, as well as promotional material. We were especially pleased to see students from Northumbria University's BSc Geography program engaged in the meeting, and speaking with postgraduates, academic and industrial palynologists. We would like to extend special thanks to all those who made the trip to Newcastle to attend this meeting. There were 27 names on

the attendance register, although several more drifted in as the day progressed. Many of these people are shown in the conference photos. We will begin planning next year's meeting soon, and we are looking forward to another fantastic and stimulating day of palynology, maybe somewhere further south?



## AASP Palynology Society Advertised Meetings

### **2015 CIMP Meeting: 16/09/15 – 19/09/15; Bergen, Norway**

The next CIMP meeting will be held in Bergen, Norway in September, 2015. This meeting is intended to bring together specialists in Palaeozoic palynology in order to present their work and to discuss various topics that are relevant to a wide range of scientific disciplines, but that cannot always be accommodated in larger, nonspecialized, general conferences.

### **2015 AASP Annual Meeting: 01/11/15 – 04/11/15; Baltimore, Maryland, USA**

AASP – The Palynological Society will hold its 2015 meeting as part of the 2015 Annual Meeting of the Geological Society of America (GSA) in Baltimore, Maryland, USA. The meeting is scheduled for Sunday, November 1 through Wednesday, November 4, with pre-conference events on Saturday, October 31.

### **Joint meeting of The Society for Organic Petrology, AASP – The Palynological Society and the International**

### **Commission for Coal and Organic Petrology: 18/09/16 – 23/09/16; Houston, Texas, USA**

First circular released: We are pleased to present the initial announcement regarding this first historic joint meeting of these three related geological, geochemical and biological scientific societies. The purpose of this joint meeting is to bring together a diverse group of scientists to discuss the close relationships between organic petrology and palynology, to foster thoughtful discussion and address issues that may be of benefit to furthering the respective sciences. Key themes to be addressed during joint activities include palynofacies and source rock assessment.

### **14th International Palynological Congress: 2016 (specific dates TBC); Salvador de Bahia, Brazil**

During the 13th International Palynological Congress in Tokyo in late August the IFPS councillors voted to hold the 14th IPC in Brazil. This will be the first time that the IPC will be held in South America.

### **Dino11th: 2017 (specific dates TBC); Bordeaux, France**

The upcoming Dino11th meeting will be held in Bordeaux in 2017. After Tübingen, Egham, Zeist, Trondheim, and Liverpool, this town will thus be the 6th European metropolis (since 1978) to welcome dinoflagellate specialists from both the modern and fossil realms. Apart from its famous vineyards, Bordeaux is a strategic paleo(environmental) center with rapid access to internationally referenced geological sites (Aquitainian and Burdigalian stratotypes, Campanian/ Maastrichtian GSSP, K/T boundary, Quercy phosphorites, dinosaur tracks), and to aquatic ecosystems of exceptional interest (Bay of Arcachon, Gironde estuary, Bay of Biscay, Aquitain lakes...).

## Ostracod Group Report

Anna March

### Ostracod Group Meeting 20 March 2015

The Ostracod Group held a day of talks at Queen Mary University of London on 20 March, 2015, chaired by Ostracod Group Secretary, Anna March. Dense cloud unfortunately obscured the solar eclipse we had laid on for the occasion but a wide range of talks more than made up for it.

The meeting was arranged to coincide with Tom Cronin's (2009 Brady medal winner) visit to QMUL and he was invited as guest of honour and keynote speaker. 18 enthusiastic ostracodologists attended and seven papers were presented. The talks highlighted the versatility of ostracods in research, incorporating geochemical and assemblage-based techniques as well as taxonomy and evolution. The research covered a wide range of locations (northern and southern hemispheres) and environments, including marine, saltmarshes, floodplains and lakes. The variety extended to the time scales involved, with ostracods being used in research from the Carboniferous to the Recent. Ostracod data were shown to help us understand and track changes in sea-ice cover, sea-level, solute chemistry and even

the isotopic composition of rainfall. It was truly impressive to see the range of research being undertaken.

Dave Horne (Queen Mary University of London) opened with a talk entitled *Taxonomic harmonization of Quaternary-Recent non-marine ostracods: the case of *Limnocythere inopinata* and *Limnocythere sappaensis**. In North America, a distinction is made between the parthenogenic *Limnocythere inopinata* and the sexual species, *Limnocythere sappaensis*, despite the valves being indistinguishable. Difficulties with this division include the existence of rare (1 in 1000) males, which may well be overlooked in a standard count. However, there does appear to be a difference in ecological preferences, with *Limnocythere sappaensis* occupying more alkaline waters. Amalgamating the two species may therefore not necessarily be the answer and may obscure valuable information. Dave left us to ponder the best



Left to right: Front row: Dave Horne, Carys Bennett, Ian Wilkinson; Second row: Tom Cronin, Caroline Maybury, Michaela Radl, Cristina Cabral, Ginny Benardout, Tasnim Patel, Anna March; Back row: Matthew Wakefield, Mick Frogley, Nicky Johnson, Alan Lord, David Siveter, Jonathan Holmes, Amra Kujundzic



way around this conundrum.

Next up, Anna March (Queen Mary University of London) described her PhD research in her paper *Ostracods from Middle Pleistocene lake sediments at Marks Tey, Essex: Qualitative and quantitative approaches to palaeoenvironmental reconstruction*. She is using a multiple-proxy approach to studying ostracods from mid-Pleistocene lacustrine sediments at a well-known British Quaternary site, Marks Tey, and hopes to combine assemblage-based techniques with geochemical analyses of the calcite shell to uncover the changing palaeoenvironment across the transition from interglacial to cold stage. She reported a fairly diverse fauna, including *Limnocythere parallela*, the first record from the UK.

Keynote speaker, Tom Cronin (US Geological Survey), gave the final paper before lunch. He described his research in the Arctic Ocean, using the sea-ice dwelling ostracod, *Acetabulastoma arcticum* as a proxy for sea-ice cover. Examination of marine cores revealed that prior to the mid-late Holocene, interglacials were seasonally ice-free and that perennial sea-ice cover may have formed only recently. This fascinating research suggests variability in the formation and persistence of sea-ice.

Following a sandwich lunch, which provided a chance to stretch our legs and chat to everyone who had come along, Carys Bennett (Leicester) gave a talk entitled *Repeat Colonisation of temporary water-bodies by Early Carboniferous ostracods and bivalves*. Carys's work forms part of the TW:eed Project, investigating fossils within 'Romer's Gap', following the Devonian mass extinction. She described work from alluvial floodplain deposits in the Ballagan formation. The ostracods and bivalves formed two types of assemblage: one marine; the other more brackish. These assemblages, together with examination of sedimentology, indicated patterns of changing salinity and desiccation, consistent with temporary water bodies and raise questions about the recolonisation of environments.

Moving from the Carboniferous to the present, Michaela Radl (Queen Mary University of London) presented work from her PhD research in a paper entitled *A comparison of ostracod faunas from coastal saltmarshes at Tollesbury, Essex, UK and the Mira River, Portugal*. Her research compared a saltmarsh in Essex with one in Portugal and found consistent ostracod fauna in the two locations, including *Loxoconcha malcomsoni*, *Leptocythere ciliata* and *Terrestricythere elisabethae* (found in the highest level of the saltmarsh). Positioning of the different species within the saltmarshes

indicate that *L. malcomsoni* and possibly *T. elisabethae* could be used as sea-level indicators.

Jumping back in time again, this time to the Cretaceous, Caroline Maybury (Aberystwyth), presented work on behalf of her husband, Robin Whatley, and his PhD student, Daiane Coelin. The paper was entitled *A new subfamily of the Cytheridae: the Nodoconchiinae* and presented data from Maastrichtian deposits from the Neuquen Basin in Argentina. This examined evolutionary trends and presented evidence of distinctive nodes or tubercles that suggest that *Austrocythere*, *Nodoconcha* and *Ectonodoconcha* belong to a new sub-family, Nodoconchiinae.

Rounding off a great day of talks was Jonathan Holmes (UCL) who presented oxygen isotope data spanning the past 200 years from ostracod valves from two shallow lakes in eastern England. Jonathan explained the factors influencing the isotopic values and showed that the falling trend in values cannot be attributed to temperature changes alone but suggests a shift in the isotopic composition of precipitation since the Little Ice Age. He emphasized the importance of independent constraints and careful site selection when interpreting isotope records.

The day ended with a discussion of future meetings. The next event on the ostracodology calendar will be the European Ostracodologists' Meeting in Estonia in July but future plans may include a field-based meeting at Malham Tarn Field Studies Centre.

## Silicofossil Group Report

Rafał Olszyński (University of Lodz, Poland) & Jinpeng Zhang (Guangzhou Marine Geological Survey, China)

### Report of 3<sup>rd</sup> Workshop on Siliceous Microorganisms

The 3<sup>rd</sup> Workshop on Siliceous Microorganisms was held at Faculty of Geosciences, University of Szczecin, 20-25 of October 2014. The workshop was focused on microorganisms that use silica in their physiological processes. The workshop was divided into thematic panels, among which diatoms were covered most extensively. In addition, the panels were divided into theoretical and practical parts. Invited specialists in diatomology were represented by David Mann, a prominent researcher in biology and physiology of diatoms; Andrzej Witkowski known specialist in the paleodiatomology and taxonomy of diatoms; Rosa Trobajo, specializing in diatom cultures; Kevin McCartney and David Harwood, specialists in paeolooceanobiology; Matt Ashworth, who uses molecular techniques to reconstruct the diatom phylogenetic tree; Jakub Witkowski, specializing in the morphology of siliceous microorganisms and Małgorzata Bąk dealing with the application of diatoms in ecology and environmental protection.

The whole spectrum of workshops issues allowed the participants to look at their research with new and wider perspective, and gave them the opportunity to apply different techniques, including cell culturing, molecular analysis or diatom autecology.

Besides the large diatomological section, the workshop was dedicated to several different groups of organisms, extant and fossil, such as siliceous dinoflagellates, radiolarians, silicoflagellates, sponge spicules and ebridians. The workshop also included a very interesting demonstration of a new generation desktop scanning electron microscope, which allows observation of different objects without sputtering.

Taking part in the 3<sup>rd</sup> Workshop on Siliceous Microorganisms enabled me to learn about various techniques, including diatoms cell culturing on a different substrates, and broadened my knowledge of both diatoms and other siliceous microorganisms.

I would like to sincerely thank the organizers for giving me the opportunity to participate in the 3<sup>rd</sup> Workshop on Siliceous Microorganisms, in particular The Micropalaeontological Society, which granted me a scholarship to participate in the workshop.

Rafał Olszyński



Workshop participants and tutors next to the entrance to the Faculty of Geosciences, University



It was a great pleasure for me to take part in the 3rd International Workshop on Siliceous Microorganisms; in this short note, I wish to express my gratitude to the organizers, and to The Micropalaeontological Society for providing financial support for me in the form of free registration for the meeting.

My primary affiliation is the Guangzhou Marine Geological Survey, China. In addition, just recently, I have been qualified for a PhD study at Faculty of Geosciences, University of Szczecin (Poland).

To a young diatom worker like myself, participation in the workshop was an amazing opportunity to meet renowned senior scientists working in my field, from all over the world. For instance, the meeting was attended by several expert diatomists: David Mann, Andrzej Witkowski, David Harwood, and Matt Ashworth. In addition to presenting the basic background information on the group biology and ecology, the lectures provided an in-depth review of the diatom fossil record, including the uncertainties in dating the origins of this heterokont lineage.

The workshop covered not only diatoms, but also other siliceous microorganism groups; this is very useful to a young scientist, who is easily confused during routine microscope work as to the proper identification of other groups occurring in the studied samples. Senior researchers from the radiolarian, silicoflagellate, siliceous diatom, and sponge spicule realms

provided detailed accounts of the morphology, biology and ecology of each group, and their applications in geosciences. The workshop formula included both lectures and practical sessions. To me, one of the most useful practical sessions was the one on diatom culturing, convened by Rosa Trobajo. Also a hands-on opportunity to examine Cretaceous, Eocene or Miocene diatoms from deep-sea cores was a very motivating experience, which prompted me to find out about the possibilities of taking part in an International Ocean Discovery Program (IODP) cruise.

Another great advantage of the workshop was that it enabled young scientists from all over the world to communicate with each other, and share the experiences of studying these strange but delicate and useful microorganisms. I do believe that contacts established during the workshop will result in successful scientific collaboration in the future.

Last but not least, after my return from the workshop, I have communicated the experiences of my short visit in a report to the Guangzhou Marine Geological Survey and China Geological Survey. Hopefully, increasingly more Chinese scientists will get to know about the future editions of the workshop.

Jinpeng Zhang



*Workshop participants, along with tutors, busy exploring the diatom fossil record*

## Foraminifera Group Report

Zeynep Erdem (GEOMAR, Kiel)

### Taxonomy Workshop on Recent benthic foraminifera

TMS Taxonomy Workshop on Recent benthic foraminifera was held during TMS Foram-Nanno Fossil 2015 Conference on 17th of June 2015 at Fitzroy Building of Plymouth University in parallel with other two workshops. It was co-organized by Joachim Schönfeld and Malcolm Hart with assistance of Christopher Smart and Deborah Well-Pallmer. We were in total 9 people attending to the workshop and to my surprise I was the only “new in the field”. In the end it was a nice experience to witness such a workshop with “the experts”.

The workshop aimed to exchange ideas regarding to Recent benthic foraminiferal taxonomy from shallow marine environments and related studies where classical taxonomic methods are still necessary. Plymouth University team provided us materials obtained by the Plymouth Marine Laboratory from the Monitoring Stations of the Plymouth area. There were two samples representing two different environments; quartz-rich sand and maerl bed sample. Every one of us was handed out small amount of each sample and was expected to pick and determine the common or interesting species covering the assemblages from both areas. We were picking, sorting and discussing characteristics of different species and at the same time comparing basic knowledge on species from similar environments. Being the only student participant of the workshop, I mostly focussed on picking as many and diverse as possible, while the experts continued on their heat discussions on different species and their distinctive features of the same genus. In particular, *Ammonia* species became the most popular ones during the workshop since we had seen many nice presentations on ongoing research

during the conference. The discussions on nomenclature and morphotypes continued until we saw SEM images of the very same *Ammonia* species we picked from these samples.

After we listed the other common species and compared these two different environments, we were done with identification and the discussion went on the current use of taxonomic resources. For me the most important point of this topic was how small amount of recent publications contain figure or plate any more. Joachim Schönfeld presented us a number of 7% of all species recorded in Recent benthic foraminiferal studies were documented as images of plates. Today, with the help of internet search engines and also because of physical and economic difficulties to reach important literature or catalogues, we rely on electronic source more and more. Limited number of digital images is leading us more confusion and therefore, mistake. Especially, how SEM images played role on reaching a consensus during this workshop was a good example of how important good images are in taxonomy studies.

For me as a PhD student working with samples from a totally different environment, it was a great pleasure to witness a “speed-up” identification of foraminifera assemblage from totally different environment. It was a really nice opportunity to discuss the taxonomy studies, including genetic studies, on benthic foraminifera together with scientists from different institutions, having different expertise, research focus and academic career state. I wish to see more organizations as such with more attendance also from students. Finally, I would like to thank again to organizers and Plymouth University team for this nice workshop and conference.



*Picking session during the workshop*



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# The Grzybowski Foundation

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## A note from the Chairman's desk

Mike Kaminski, King Fahd University of Petroleum & Minerals

The summer of 2015 has been quite a busy one at the Grzybowski Foundation. The Eighth International School on Foraminifera at the University of Urbino took place in June, and in July we officially opened the new offices of Micropress Europe at the AGH University of Science & Technology in Krakow. The preparations for the MIKRO-2015 meeting are taking place, and we are preparing the Abstract volume for this meeting, which will be held jointly with the Czech-Polish-Slovak Paleontological meeting in Olomouc in September. We will also sponsor the Micropaleontological session at the 10<sup>th</sup> Romanian Symposium of Paleontology conference in Cluj-Napoca in October.

Firstly, the ISF-8 course has been a great success with 43 students in attendance (Figure 1). For the first time the course was co-sponsored by ECORD (the European Consortium for Ocean Drilling), who funded four students to attend the course. We also had an "ECORD Evening" of presentations, held in the grounds of the Castle in Urbino. Several of the talks were related to Ocean Drilling, including my own talk on the initial results of last summer's ALEX Expedition to the Lomonosov Ridge, which did a site survey for a future IODP expedition to the Arctic Ocean. We would like to sincerely thank ECORD, the TMS, and CGG-Robertson for providing support to sponsor students at this summer's foraminiferal course in Urbino. We especially wish to thank Loren Petruny, who produced a daily blog of the various lectures and other course activities during the ISF. Thanks to Loren and others who contributed photos, the ISF facebook page was very active this year.

The GF also would like to announce close links with the newly-established "Micropress Europe", which is the European representative of Micropaleontology Press Foundation in New York. Micropress Europe has its office on the campus of the AGH University of Science & Technology (in building A0), at Mickiewicza Avenue 30, in Kraków. The Kraków airport bus 292 stops in front of the building. The Micropress Europe office is located on the second floor at the top of the grand staircase in the main reception area, next to the life-size model of *Tyrannosaurus*. The mission of MPE is to support research and education in the field of Micropaleontology through publications, training courses, research collections, and library. MPE is affiliated with the Micropaleontological

Press Foundation, publishers of the scientific journals *Micropaleontology* and *Stratigraphy* and the "Ellis & Messina" catalogues of microfossils. The vision is to provide logistical support for Micropaleontology Press, produce high-quality publications, and maintain a comprehensive reference and learning centre for the benefit of our micropaleontological community in Krakow. MPE will now publish and distribute the "Grzybowski Foundation Special Publications", assist with the "Ellis & Messina" catalogues, and serve as an agent for the Micropaleontology Press journals and catalogues. We have the only up-to-date paper copy of the **Ellis & Messina Catalogue of Foraminifera** in Eastern Europe – and we make this resource available for the benefit of local foraminiferal researchers. We also have a (mostly) complete set of the **Ellis & Messina Catalogue of Ostracoda**.

An important joint activity between the GF and the MPE is the establishment of a new micropaleontological reference centre (Figure 2). We currently have several wooden cabinets of archived microscope slides, mostly benthic foraminifera from Poland (the collection of Irena Heller from the Polish State Oil company GEONAFITA), from IODP sites in the Arctic, Atlantic, and Indian Oceans; and from exploration wells in the Boreal seas. We have a separate collection of type specimens of species (paratypes). The archived slides are arranged in drawers according to the publications in which the faunas were described. Researchers are welcome to visit the offices of Micropress Europe to view the collections. We have binocular microscopes in our office, and we have access to the Scanning Electron Microscope Lab at AGH. Viewing is by appointment only – please contact Anna Waskowska at AGH to schedule an appointment.

The close links between the Grzybowski Foundation and Micropress Europe will no doubt be of benefit to both organizations. The link will mean better distribution of the GF Special Publications, as well as better visibility of the Micropaleontology Press publications in Europe. Importantly, it



*Group Photo at the ISF-8 Course in Urbino, June, 2015*

provides a new library & collections facility that all local Micropaleontologists will be able to use – as well as room for expansion.

Speaking of which – Grzybowski Foundation Special Publication nr. 21 (the Czech-Polish-Slovak Paleontological meeting / MIKRO-2015 abstract volume) is now in the proof stage, and the printed version will be distributed at the meeting in Olomouc. GF members will receive their volume in the post shortly thereafter. The volume is dedicated to Richard J. Schubert, a friend of Grzybowski, who died from battlefield wounds in Galicia in May of 1915. R.J. Schubert was born in Mohelnice not far from Olomouc, where he attended high school. He died near Wietrzychowice Poland on the eastern front along the River Dunajec, and was buried in the churchyard there. This summer, we made a day trip to visit the churchyard in Wietrzychowice, and found that the Austrian war graves in the eastern corner of the cemetery are in quite good condition. The little military section of the cemetery is well looked-after, and we discovered that the memorials had recently been decorated with colourful ribbons (Fig. 3). The upcoming GF volume contains a historical note about Schubert's research, and 73 pages of abstracts. The pdf version of the abstract volume will be made available to download from the GF website.

Just a reminder about the upcoming activities of the GF: We hope to see our members at the Czech-Polish-Slovak Paleontological meeting /

MIKRO-2015 meeting in Olomouc, Czech Republic, September 9–11, 2015. The venue will be held at the Univerzita Palackeho, and the registration fee is 60 euros. The Opening Session and the MIKRO-2015 session will be held on Wednesday, September 9<sup>th</sup>, while the CZ-PL-SK Paleontology conference will take place on Thursday and Friday, September 10-11. The joint icebreaker party will be held on Thursday evening. A field trip is also planned to visit the places associated with R.J. Schubert's life and scientific studies. Please contact Mirek Bubík for further details: [miroslav.bubik@geology.cz](mailto:miroslav.bubik@geology.cz) Hope to see you there!

Finally, the BioGeoLab at the Polish Academy of Sciences in Krakow is offering a Laboratory Technician position in Micropalaeontology, in the newly-refurbished foraminiferal culturing lab. The position is for one year in the beginning, and requires at least a master's degree. The candidate should have a background in Chemistry and Biology, and be interested in developing new experimental methods for culturing foraminifera. Please contact Jaroslaw Tyszk for further details at [ndtyszka@cyf-kr.edu.pl](mailto:ndtyszka@cyf-kr.edu.pl)





*The official opening of the new "Micropress Europe" reference center at the AGH University of Science & Technology in Krakow, July, 2015.*

**Grant progress report: "The Brian J. O'Neill Memorial Student Grant-in-aid for PhD Research, 2014".**

Justyna Kowal-Kasprzyk (Jagiellonian University, Kraków)

My research is focused on the micropaleontological description of the Mesozoic exotic limestones from the Silesian Nappe of the Polish Outer Carpathians. The calcareous rocks I study come mostly from ridges that existed in the Carpathian sedimentary basins, and which were destroyed during the formation of the Carpathian Mountains. Nowadays, they are found among conglomeratic and sandy Carpathian rocks. I collected numerous (about 500) samples from 31 localities, which I studied mostly in thin sections. Among them I recognised mainly Tithonian-Berriasian deposits of carbonate platforms (Štramberg-type limestones), deeper deposits of the same age, as well as Oxfordian shelf limestones and marly/sandy limestones, and very rare Cretaceous limestones younger than Berriasian. From the "middle" Tithonian-Berriasian limestones, I described numerous calpionellids and chitinoideids, which allowed to recognise Chitinoidea, Craticollaria, and Calpionella zones with their subzones. For other samples, foraminifera and calcareous dinoflagellates have the biggest stratigraphic significance, and I analysed them in detail.

My study provides many paleontological, stratigraphic, and microfacial data, but furthermore, may be helpful for reconstructing of areas of the Carpathian basins that are no longer preserved.

In the final stage, my study was supported by the Brian J. O'Neill Memorial Student Grant-in-aid for PhD Research, previously also by the National Science Centre in Poland, grant no. NN 307 057740 and by grant UJ ING no. K/ZDS/001463. Until now the results of this research were presented in one printed paper and at numerous conferences, recently at the 15<sup>th</sup> Czech-Polish-Slovak Paleontological Conference 2014 in Banská Bystrica ("Diversity and development of the genus *Calpionella* in the upper Tithonian and lower Berriasian – a case study of exotic limestones of the Polish Outer Carpathians"). I am grateful to the GF for the award of the Brian J. O'Neill Memorial Student Grant-in-aid.

## Micropalaeontological collections of Jaroslav Perner in the Natural History Museum in Prague

Štefan Józsa, Miroslav Bubík, Jan Sklenář

During our Czecho-Slovak collaboration activities, an opportunity came along to check out the historical collections of several leading persons of Czech micropalaeontology. Among the oldest micropalaeontological collections is that of Jaroslav Perner – an outstanding Czech palaeontologist from the heroic times of geology. His collections can be visited at the Natural History Museum, a branch of the National Museum, surrounded by the picturesque countryside of Prague in Horní Počernice, Cirkusová st. 1740, 193 00.

Jaroslav Perner was born in 1869 in Týnec nad Labem and during his studies as a naturalist he studied in Birmingham with Prof. Charles Lapworth and later in Tübingen with Prof. Ernst Koken. The greatest influence on his professional career was provided by his uncle Prof. Antonín Frič, one of the leading persons in Czech palaeontology. During his lifetime he travelled over Germany, France, Sweden, Norway, U.S.A, and Russia, where he spent most of his time in the Ural Mts. He started his professional career as a custodian of the palaeontological collections at the "Museum of the Bohemian Kingdom" and an editor of journal "Geologisches Zentralblatt". He pointed his interest to Foraminifera mostly from the Upper Cretaceous of the Bohemian Cretaceous Basin (Perner 1892,

1893, 1897) and radiolaria (Perner 1891) or Upper Jurassic Foraminifera (Perner 1898). His interests included also studies on graptolites (Perner 1894, 1895, 1899). One of his most significant contributions is a gastropod volume of Joachim Barrande's *Système Silurien du centre de la Bohème*. In 1927 he became a professor at the Charles University in Prague and a member of (KČSN). In 1937 he became a member of Czech Academy of Sciences and the Arts (ČAVU). Jaroslav Perner died in 1947 and is buried at his birthplace.

Our time in the museum was short, therefore we did not see all that the micropalaeontological collections have to offer. We stumbled also across the collections of H. Wiesner or J. S. Procházka within the Mesozoic collection. But let's leave them for another time.

Acknowledgements: the first author would like to thank to the project APVV-SK-CZ-2013-0129 for the opportunity to visit the micropalaeontological collections in Prague, contributing this way to the integrity of Central and Eastern European values and the heritage of our micropalaeontological

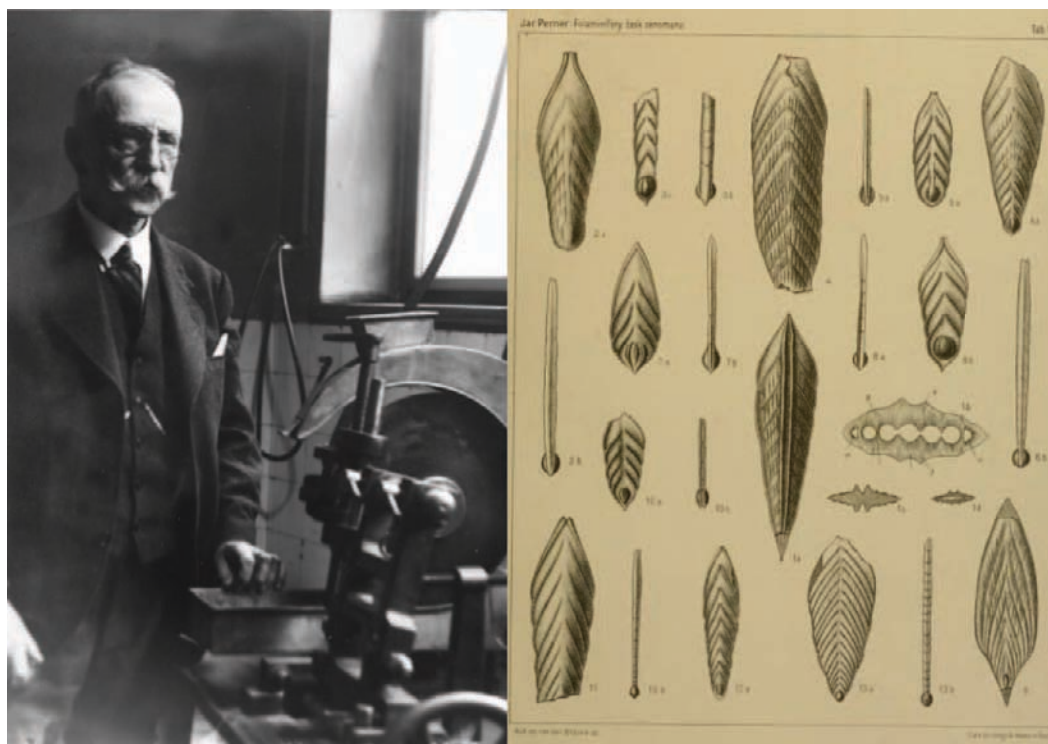


Photo portrait of Jaroslav Perner (right) and figures of foraminifers (left), from his publication "Foraminifera of the Czech Cenomanian" (Perner 1892). Photo portrait used with courtesy of the Municipal Museum of Týnec nad Labem.



community.

The most important publications of Jaroslav Perner concerning the micropalaeontological collections:

Perner, J. (1891): O radiolariích z českého útvaru křídového. – Věstník Královské České Společnosti Nauk, Třída matematicko-přírodovědecká, 255-269.

Perner J. (1892): Foraminifery českého cenomanu. - Palaeontographica Bohemiae, no. 2, 73 pp. Praha.

Perner J. (1893): Předběžný kritický seznam foraminifer z březenských vrstev. – Věstník Královské české společnosti nauk, Třída matematicko-přírodovědecká, p. 34 - 53. Praha.

Perner J. (1897): Foraminifery vrstev bělohorských. - Palaeontographica Bohemiae, 4, 1 - 73. Praha.

Perner, J. (1898): O foraminiferách z tithonu štramberského. – Rozpravy České akademie věd a umění, Třída matematicko-přírodovědná, 7, 11, 9 pp. Praha.

Zázvorka V (1954): Nynější stav foraminifer popsaných Jaroslavem Pernerem z křídového útvaru Čech. – Časopis Národního musea, Oddíl přírodovědný, 123, 1, 74 – 84. Praha.

Biographies of Jaroslav Perner:

Otto J., (1902): Ottův slovník naučný. Devatenáctý díl. Praha, p. 503–504. (in Czech)

Přenosil J., (2004): Historické kalendárium, týden 22. 3. - 28. 3. 2004. IForum. Charles University. Prague. online: <http://iforum.cuni.cz/IFORUM-493.html> (in Czech)

The Municipal Museum of Týnec nad Labem: <http://www.tynecnadlabem.cz>



Storage boxes with microslides of Jaroslav Perner

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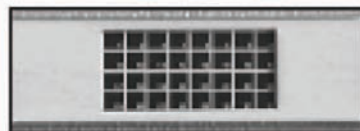
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