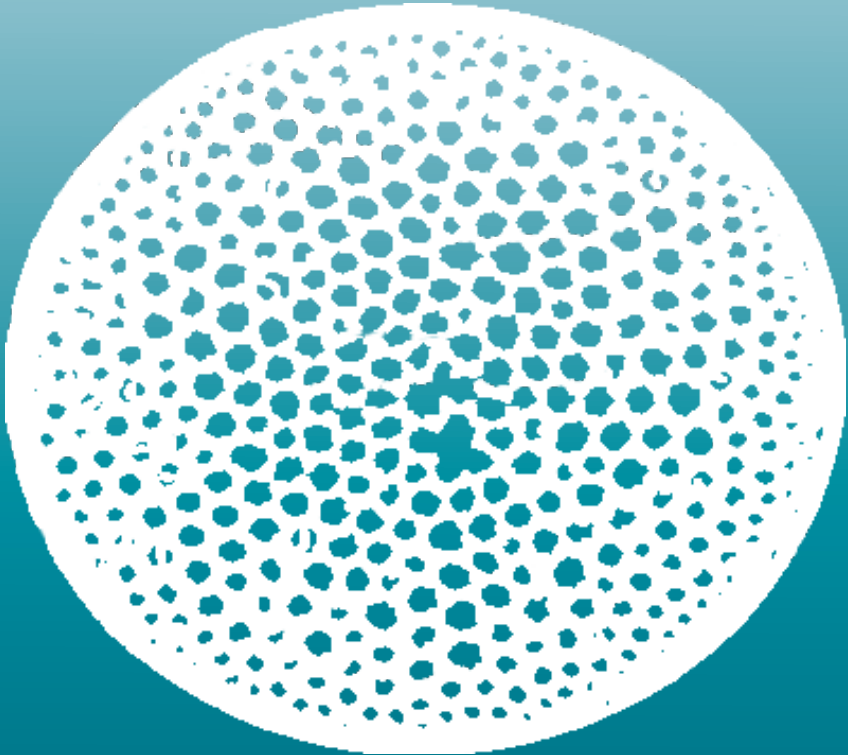


# ***Newsletter of Micropalaeontology***

Number 84  
August 2011

Edited by Magali Schweizer



# ***Contributions from***

The Micropalaeontological Society



The Grzybowski Foundation



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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: Magali Schweizer, School of GeoScience, University of Edinburgh, West Mains Road, Edinburgh EH9 3JW, UK, or by email to [magali.schweizer@ed.ac.uk](mailto:magali.schweizer@ed.ac.uk).

## Copy Date

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# Editorial

## MICROPALAEONTOLOGY – SOME OPPORTUNITIES AND CHALLENGES

As a person who has been involved with teaching & training for the past 20 years, I think there is a chance to identify some key opportunities and challenges that face our micropalaeontological community in the immediate future. Earlier this year, the President of the European Society of Petroleum Engineers gave a presentation at a Middle Eastern conference in which he showed a graph of the demographics of their society. It turns out that the petroleum engineers are facing an immediate staffing crisis, as the median age of the members of their society is currently around 54 years. It will not be possible to replace those members who retire in the short term. Although I do not have any statistics for our profession, I wonder whether they are dissimilar to those for the petroleum engineers. After the closure of the UCL MSc Micropalaeontology degree in September 2010, when the last candidate graduated, there is no longer any formal training in our subject at MSc level in the United Kingdom. In fact, in December 2010 the NERC terminated funding to all MSc courses in the UK, so this door is now closed. The UCL course would have been shut down a year later in any case.

Recently, there have been some laudable initiatives undertaken to support education and training. The course sponsorship scheme undertaken by Haydon Bailey and colleagues through TMS is certainly a welcome move in the right direction. However, with postgraduate tuition and accommodation fees a 5-digit figure, quite a lot of funding would be required in order to fully fund a British or European student at a UK university these days. At the moment, the societies such as TMS and GF can only give out small grants for incidental expenses. Major sponsorship through a consortium would be now required in order to re-start a MSc course.

We have also seen that some occasional courses, such as the summer short course taught in Urbino are able to attract up to 40 participants.

The need for postgraduate-level courses is certainly there. One challenge would be to have such courses accredited through the European Credit Transfer system, so that they would be 'counted' toward a student's academic record. Personally, I am doing what I can in order to start up a postgraduate course at KFUPM in Saudi Arabia – and so far we have one master-level course on the books that is taught as part of the MSc degree in Geology. Much more effort and expertise would be required in order to start up a degree in the subject, and at the moment this is only an aspiration.

Another of my 'pet peeves' is the lack of up-to-date textbooks for teaching micropalaeontology. Those that are in use are out of print and out-of-date. We now use the scripts produced as part of the International School on Planktonic Foraminifera in Perugia, as well as the books published in the 1980s, but someone needs to put everything together into one coherent script for the benefit of the beginner. Do not even ask me about the Loeblich & Tappan (1987) volume! When will this handbook be revised and updated? We (some GF members) are currently working on updating the descriptions of the agglutinated foraminiferal genera, but as far as I know, nobody has yet begun the task of updating the other orders and superfamilies of the Foraminifera. If we want to have a comprehensive manual for training the next generation of micropalaeontologists, we will need to have an updated treatise. So for now, my students still look at the Loeblich & Tappan volume published in 1964...

What can we do in the short term to improve conditions and opportunities for the education and training of young micropalaeontologists? I am afraid I do not have the answer to this question, but perhaps this is a problem that all of us reading this column need to consider. If we do not encourage and support students who wish to enter our profession, we will soon be facing our own mass extinction event...

Mike Kaminski, KFUPM

# Conference Announcements

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## ***Islands: Palaeontology, Geology and Tectonics Lyell Meeting 2011***



***Attendance is FREE!***  
***Geological Society, Monday, 24th October, 2011,***  
***9.00 a.m. – 5.00 p.m.***

This free, one-day meeting aims to bring together experts on diverse aspects of the geology and palaeontology of islands. Island chains furnish key evidence for plate tectonic processes, providing subaerial expressions of suites of rocks that are otherwise limited to the marine realm. The rock records of oceanic islands are dominated by igneous rocks and limestones which together contribute to an unusual suite of natural environments. And the fossil biotas of islands provide evidence of generally widespread marine taxa contrasted with unusual terrestrial biotas brought together by chance biogeographic processes, influenced by the barriers of geology, tectonics and physiography.

### **Speakers include**

Grenville Draper (Florida International University, Miami)  
Trevor Jackson (University of the West Indies, Trinidad)  
Tom Spencer (University of Cambridge)  
David Harper (University of Copenhagen)  
Peter Skelton (The Open University)  
Hanneke Meijer (Smithsonian Institution, Washington, D.C.)  
Daniela Winkler (University of Hamburg)  
Don McFarlane (W.M. Keck Science Center, Los Angeles)

Attendance is FREE, but you must pre-register your interest in attending this conference. Please email Georgina Worrall – [georgina.worrall@geolsoc.org.uk](mailto:georgina.worrall@geolsoc.org.uk)

For more information contact, the convenor, Steve Donovan, at [Steve.Donovan@ncbnaturalis.nl](mailto:Steve.Donovan@ncbnaturalis.nl) or (0031)-71-568-7642

A joint meeting of the Palaeontological Association, the Geological Society, the Palaeontographical Society and the Micropalaeontological Society

# ***Geobiology and Environments of silica biomineralizers***

**SILICOFOSSIL GROUP'S MEETING, LILLE, SEPTEMBER 5-6TH, 2011**

## **PRELIMINARY PROGRAM**

### **Sunday September 4<sup>th</sup>, 2011**

18:00-20:00 Reception at the Natural History Museum of Lille

### **Monday September 5<sup>th</sup>, 2011 (University Campus, near A3)**

8:30-9:00 Registration

9:00-9:30 Opening ceremony

9:30-10:00 J.P. Caulet - George Deflandre (1897-1973); the first French naturalist interested in siliceous microfossils

10:00-10:45 P. De Wever, S. Gorican & L. O'Dogherty - Monsoon as cause of Mesozoic radiolarite deposits in Tethys

10:45-11:15 - Coffee-break

11:15-12:00 *Silica biomineralization and biogeochemical cycles*  
P. Tréguer & Ch. De La Rocha (Keynote talk)

Is the silicic acid leakage hypothesis supported by facts?

12:00-12:20 Pannizo et al. - A  $\delta^{30}\text{Si}_{\text{diatom}}$  reconstruction of Holocene productivity of the Southern Ocean, east Antarctica

12:20-12:40 A. Sadekov, K. Darling & H. Elderfield - Preliminary view on radiolarian geochemistry using secondary ion mass-spectrometry (SIMs) microanalysis: new proxy for paleoclimate?

12:30-13:00 J. Pike, M. Leng, G. Swann & A. Snelling - Diatom silica oxygen isotope records from the Antarctic margin

13:00-14:00 Lunch

#### *Siliceous phytoplankton and (palaeo-) environmental studies*

14:00-14:30 P. Lopez - The impact of ocean acidification on the dynamics of diatom morphogenesis

14:30-14:50 J. Tyler, M. Leng, H. Sloane, E. Cox & R. Rickaby – Oxygen isotope fractionation during the life and death of diatoms

14:50-15:10 L.F. Artigas, M. Dias, C. Arantes, B. Beker, I. do Rosario Marinho-Jaussaud, J. Chicheportiche, L. Courcot - Diatoms in the Amazon aquatic continuum: dynamics and diversity, from the main river and tributaries to estuarine, coastal and shelf systems under strong continental influence

15:10-15:30 D.U. Hernandez Becerril, S.A. Baron-Campis & A. Morales-Blake - Environmental conditions favoring high densities of planktonic diatoms in coasts of the central Mexican Pacific (April, 2010)

15:30-16:00 – Poster presentations

16:00-16:30 - Coffee-break

- 16:30-16:50 *Siliceous phytoplankton and (palaeo-) environmental studies*  
J. Prygiel - Diatoms: ecological status and the European directive for environmental monitoring
- 16:50-17:10 R. Ramanibai, S. Ravichandran & S. Jeyanthi - Diatoms as environmental indicators for modern and paleo studies
- 17:10-17:30 T. Hatin, A. Le Hérisse, L. Droz & T. Marsset - Diatoms as sensitive indicators for climatic variability reconstruction through the last 165 Ka in the Zaïre/Congo deep-sea fan
- 17:30-17:50 C. Allen - Diatoms of Antarctica and their proxy record
- 17:50-18:10 J. Witkowski - Trends in siliceous plankton productivity (ebridians, silicoflagellates and diatoms) during late middle Eocene greenhouse warming at ODP Sites 748 and 1051
- 18:10-18:30 B. Jones - The importance of biogenic silica in the exploration for and exploitation of unconventional shale gas reservoirs

Discussion around posters

19:30-22:00 Gala dinner

## **Tuesday September 6<sup>th</sup>, 2011 (University Campus, near A3)**

### *Radiolarian biomineralization and environments*

- 9:00-9:20 K. Ogane, A. Tuji, N. Suzuki, R.S. Hori, T. Kurihara, A. Matsuoka - Function of pseudopodia in polycystine cells as silica accumulation organelle by PDMPO examination
- 9:20-9:40 N. Suzuki, K. Ogawa, K. Ogane & A. Tuji - Patchwork silicification of living polycystine Radiolaria observed with the long-term continuous video recording
- 9:40-10:00 P. Dumitrica - Skeletal malformations in some Polycystine Radiolaria and silicoflagellates: link with environmental factors
- 10:00-10:20 E. Pylarczyk, T. Danelian, T. Marsset - Pleistocene climatic changes and *Cycladophora davisiana* fluctuations in the eastern tropical Atlantic
- 10:20-10:40 D. Lazarus, P. Diver, N. Suzuki and members of the IODP Paleontology Coordination Group – Tools for synthesis of the deep-sea microfossil record - recent advances in developing the Neptune database, taxonomic dictionaries, and age-model library
- 10:40-11:00 L. O'Dogherty, P. De Wever & S. Gorican - Preservation vs. productivity: Assessing the potential of Mesozoic radiolarians as paleoenvironmental proxies
- 11:00-11:30 - Coffee-break

### *Siliceous sediments and their significance*

- 11:30-11:50 M. Caridroit & C. Randon – The Carboniferous Lydian rocks (or lydites); a siliceous event?
- 11:50-12:10 T. Gregory - Atmospheric controls on the formation of diatom-rich sediments in Adélie Land, East Antarctica
- 12:10-12:25 C. Plet, A. Person, M. de Rafélis - Cherts from lakes of the East African Rift are believed to be a good analog to the Precambrian cherts. Do they have a biotic origin?
- 12:25-12:45 N. Sennikov - On the depositional depth of Lower Cambrian volcanic-

siliceous-terrigenous sequences in the central part of the Gorny Altai (SW Siberia, Russia)

12:45-13:00 O. Obut, L. Pouille, T. Danelian & N. Sennikov - Radiolaria and sponge spicules from the Lower Cambrian of the Altai Mountains (Siberia)

13:00-14:00 Lunch

*Siliceous plankton biodiversity dynamics*

14:00-14:20 D. Lazarus, J. Renaudie, J. Barron, A. Türke & P. Diver - Cenozoic diversity history of diatoms and radiolarians - current knowledge, limitations, future prospects

14:20-14:40 E. Verleyen, B. Van de Vijver, D.A. Hodgson, K. Sabbe, C. Souffreau, L. Nedbalová, I. Tavernier, M. Sterken, V.J. Jones, P. Vanormelingen, D. Antoniadou, W. Van Nieuwenhuyze, I. Satoshi, S. Kudoh & W. Vyverman - Poles apart: interhemispheric contrasts in polar diatom diversity driven by differences in tectonics and glacial history

14:40-15:00 J. Renaudie & D. Lazarus - Macroevolutionary patterns in Antarctic Neogene radiolarians

15:00-15:20 N. Bragin - The biostratigraphic, palaeobiogeographic and palaeoclimatic significance of Boreal Triassic radiolarian assemblages from Arctic Russia

15:20-15:40 L. O'Dogherty, P. De Wever & S. Gorican - What forcing mechanism drives radiolarian diversity in the Mesozoic?

15:40-16:00 V. Vishnevskaya - Evolution of siliceous skeletons of genera of the Family Parvicingulidae (Radiolaria)

16:00-16:30 - Coffee-break

*The Siliceous biotic response to global change*

16:30-16:50 Q. Feng & T. Algeo - Permo - Triassic anoxic marine evolution: evidence from the distribution and extinction process of radiolarian fauna

16:50-17:10 K. Kuwahara & A. Yao - Permian-Triassic transition strata and the radiolarian record from Japan – A case study of the Gujo-hachiman section

17:10-17:30 L. Bragina - The importance of Cenomanian Radiolaria from Crimea (Ukraine) to improved understanding of Cenomanian-Turonian Radiolarian biodiversity

17:30-17:30 T. Palechek, O. Savelyeva & D. Savelyev - Cenomanian radiolarians and track of OAE2 in the Far East of Russia

17:30-17:50 P. Dumitrica - Siamese twin skeletons in Mesozoic radiolarians

Closing ceremony

*Poster presentations*

G. Asatryan & T. Danelian: The importance of Middle Jurassic to Lower Cretaceous radiolarian assemblages for the reconstruction of the Tethyan ocean realm in the Lesser Caucasus (Armenia)

N. Bragin: Late Jurassic to Early Cretaceous Radiolaria of Nordvik Peninsula, Russia, Arctic

L. Bragina & N. Bragin: Triassic and Late Cretaceous high-latitude radiolarian assemblages and their morphological affinity and difference (comparative analysis)



- L. Bragina: Albian - Cenomanian Radiolaria from the Uttatur Formation, Kaveri Basin, Southern India
- Q. Ma & Q. Feng: Radiolarian taxonomy and biostratigraphy from the Permian Gufeng Formation in western Hubei
- E.A. Morales, M.H. Novais, L. Hoffmann & L. Ector: Current taxonomic studies on the diatom flora (Bacillariophyceae) of the Bolivian Altiplano, South America with possible consequences on palaeoecological assessments
- O. Obut: Devonian Radiolarian diversity and biostratigraphy from the Altai mountains (Southern Russia)
- L. Pouille, T. Danelian, L. Popov & Ghobadi-Pour: Discovery of a Late Darriwilian – Early Sandbian diverse radiolarian assemblage from Kazakhstan: a key fauna to better evaluate radiolarian diversity trends in the context of the Great Ordovician Biodiversification Event
- N. Tribouvillard, V. Bout-Roumazielles, A. Riboulleau, F. Baudin, D. Danelian, L. Riquier: Transfer of Germanium to marine sediments: insights from its accumulation in radiolarites and authigenic capture under reducing conditions. Some examples through geological ages
- V. Vishnevskaya: Recrystallization of silica in Radiolaria and possible replacement in connection to diagenetic changes
- V. Vishnevskaya: Radiolaria and sponge spicule Si structure evolution as reflection of ocean change

# **TMS Foraminifera and Nannofossil Groups Joint Meeting**

University of Edinburgh

## ***Interdisciplinary advances in foraminiferal and nannofossil research***

Thursday 21<sup>st</sup> and Friday 22<sup>nd</sup> June 2012

- Welcome reception 20<sup>th</sup> June • BBQ 21<sup>st</sup> June • Field trip 23<sup>rd</sup> June to Hutton's unconformity and Carboniferous reefs and microfossil bearing sediments of the East Lothian coast • Accommodation on site • Maximum opportunities for students to present and discuss their research •

The meeting will be preceded by a two day workshop (19<sup>th</sup> and 20<sup>th</sup> June) at the University of St Andrews entitled

***'North-east Atlantic benthic foraminifers: a new taxonomy for the 21st century'***

# The Micropalaeontological Society

## News

### Report from the Secretary - JENNY PIKE

#### MEMBERSHIP

Current membership of TMS is buoyant with 491 individual members; 410 have paid their 2011 subscription at this time. In this light, I would like to thank George Swann, Membership Secretary, for his excellent work in keeping track of all our members and would encourage all those who have yet to pay their membership subscription for 2011 to do so as soon as possible. Many of you are taking advantage of the online payment system which is making renewing your membership easier. In 2011, so far, we have welcomed 36 new members to TMS:

Duffield, C.J., Lei, Z., Weinkauff, M., Murphy, C., Phipps, M., Turkistani, M., Smadi, A.A., Maillet, S., Kemp, A.E.S., Jehle, S., Miles, C., Fox, L., Hawkes, S., Barrett, B., Palumbo, E., Emanuele, D., Schroeder, R., Hanagata, S., Ibilioğlu, D., Scott, K., Amayuelas, E., Jonas, A.-S., Arthur, K., Evans, K., Omar, R., Van Renterghem, C., Wiltshire, J., Willumsen, P., Hopla, E., Jolley, D., Fuss, J., Hodge, A., Giusberti, L., Reid, C., Howell, C. P. and Mikis, A.

#### AGM 2011

At the 2011 AGM we will be celebrating the centenary of Alfred Wegener's lecture on 'Continental Drift' given in Frankfurt-am-Main on 6<sup>th</sup> January 1912. The science theme will be 'microfossil palaeobiogeography in relation to plate tectonics' and the full science programme is available elsewhere in the Newsletter (pp. 12-15) and can be found on the website. The 2011 AGM will be held at University College London on Wednesday 16<sup>th</sup> November 2011. Items for the AGM agenda should be sent to the Secretary by email, or in writing, by 15<sup>th</sup> October 2011. Like every year, as well as excellent science talks, the AGM will include presentations of the Society's awards and honours and will be followed by a wine reception, kindly sponsored by PetroStrat Ltd.

#### 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, as documented by publications, software, patents, leadership or educational activities. The committee will award the 2011 Alan Higgins Award to Bridget Wade at the 2011 AGM in recognition of her taxonomic and biostratigraphic work, as well as her contributions to education and stratigraphy working groups.

Nominations for the 2012 Alan Higgins Award should be sent to the Secretary by 28<sup>th</sup> February 2012 using the appropriate nomination form available from the website.

#### CHARLES DOWNIE AWARD

The Charles Downie Award is an annual award made to the member of the Society who, in the opinion of the Committee, has published the most significant paper, in any journal, based upon his or her postgraduate research. The committee will awarded the 2011 Charles Downie Award (best paper published in 2010) to Clara Bolton at the 2011 AGM for her paper entitled: Bolton, C. T., Gibbs, S. J., Wilson, P. A. 2010. Evolution of nutricline dynamics in the equatorial Pacific during the Late Pliocene. *Paleoceanography* 25, PA1207, doi:10.1029/2009PA001821.

Nominations for the best paper published in 2011 should be sent to the Secretary by 28<sup>th</sup> February 2012.

#### TMS STUDENT AWARDS

Nine of our new members are recipients of TMS Student Awards. These are Anna Mikis (Cardiff University), Ann-Sophie Jonas (IFM-GEOMAR, Kiel), James Wiltshire (University of South-

ampton), Jochen Fuss (Eberhard-Karls Universität Tübingen), Annabel Hodge (University of Bristol), Claire Howell (Keele University), Eder Amayuelas (Universidad del País Vasco), Christopher Duffield (University of Plymouth) and Cédéric Van Renterghem (University of Ghent - K.U. Leuven). The 2011 Student Award in memory of Brian O'Neill was awarded to Anna Mikis (Cardiff University). These students are nominated for an award (free membership for 2011) for outstanding performance on one of the TMS-approved micropalaeontological courses (see pp. 16-17 for details). Congratulations to them all. The TMS Student Award scheme currently has 11 approved micropalaeontological courses and I would encourage all lecturer and professor members to consider nominating their taught micropalaeontological courses for the scheme and thereby encouraging their best students to perhaps continue with micropalaeontological endeavour.

### **TMS GRANTS-IN-AID**

Five eligible applications for Grants-in-Aid were received by the 28<sup>th</sup> February 2011 deadline, and the committee decided to award all five grants towards fieldwork costs or attendance at specific micropalaeontological conferences:

Tom Gregory (Cardiff) to attend the TMS Silicofossil Meeting in Lille in September, Annekatrin Enge (Tübingen) to attend the TMS Foraminifera-Nannofossil Groups Meeting in Krakow in June, Ginny Bernardout (Queen Mary University of London) for field work costs in Essex and Eliana Palumbo and Emanuele Dario (University of Sannio) to attend the Urbino Palaeoclimatology summer school.

I would encourage all of our student members to consider applying for a Grant-in-Aid. 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 can not be awarded for miscellaneous expenditure, neither 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 once their grant has been used. Applications 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 2012.

## ***Committee Vacant Offices***

At the 2011 AGM, the terms of the following Officers come to end:

**Secretary**  
**Industrial Liaison Officer**

Nominations for these positions should be submitted to the Secretary by 15<sup>th</sup> October 2011. 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 for information on what duties these posts entail.

## ***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.

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### ***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 2012**

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### ***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 2011 and will be presented at The Micropalaeontological Society AGM in November 2012. Nominations for the best paper published in 2011 should be submitted to the TMS Secretary by 28<sup>th</sup> February 2012.

## ***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.

## ***TMS AGM 2011***

### ***Microfossil Palaeobiogeography and Plate Tectonics - a tribute to Alfred Wegener***

**Date:** Wednesday 16th November 2011

**Venue:** University College London, room to be confirmed

**Organisers:** Alan Lord and John Marshall

### **Schedule:**

1.30-2.00	Society business
2.00-5.30	Scientific programme
5.30-6.00	Awards ceremony: Charles Downie Award, Alan Higgins Award for Applied Micropalaeontology and the Brady Medal
6.00-7.30	Wine reception

# TMS AGM 2011

## Scientific programme

The programme is dedicated to Alfred Wegener (1880-1930) and his lecture on 'Continental Drift' given in Frankfurt-am-Main on 6 January 1912. Wegener was a meteorologist and explorer, not a geologist or palaeontologist, and the theme of the meeting in modern terms is microfossil palaeobiogeography in relation to plate tectonics.

### **Prof. Rolf Schroeder (Frankfurt-am-Main)**

'Alfred Wegener: his life and work. Some pre-Wegener palaeobiogeographic ideas and actual examples of Cretaceous larger foraminifera in relation to plate tectonics'

### **Dr Mark Williams (Leicester)**

'The Ostracod Supremacy'

### **Dr Jan A. Rasmussen (Copenhagen)**

'Utilising microfossils with poorly-defined phylogenetic relationships in palaeobiogeographical studies: Conodonts from the Ordovician'

### **Prof. John Marshall (Southampton)**

'The Greening of the Devonian World'

### **Dr Marcelle BouDagher-Fadel (London)**

'Plate Tectonics and the Cenozoic Development of the Larger Benthic Foraminifera'

### **Dr John A. Barron (Menlo Park)**

'The Eocene Marine Diatom record: response to plate tectonics, falling sea level, and paleo-oceanography'

## **ABSTRACTS**

### **Rolf Schroeder**

Senckenberg Forschungsinstitut und Naturmuseum, Senckenberganlage 25, D-60325 Frankfurt-am-Main, Germany

### **Antonietta Cherchi**

Università di Cagliari, I-09127 Cagliari, Italy

### ***Alfred Wegener: his life and work. Some pre-Wegener palaeobiogeographic ideas and actual examples of Cretaceous larger foraminifera in relation to plate tectonics***

One hundred years ago, Alfred Wegener (1880-1930) gave in the Senckenberg Museum

(Frankfurt-am-Main) the pioneering lecture on the 'Origin of continents'. For this reason it is justified to give a short review of his life and his activities as meteorologist and geophysicist. In his main publication 'The origin of continents and oceans' (first edition, 1915) he presented geophysical, geological, palaeontological and palaeoclimatological arguments in favour of continental drift.

However, already in the mid 19<sup>th</sup> Century some pre-Wegener palaeobiogeographic and palaeoclimatological ideas were published. It is nearly unknown that Ferdinand Roemer (1818-1891) recognised during an expedition to North America (1845-1847) that the Cretaceous deposits of Texas and their fauna (rudists, orbitolinid foraminifera) show a remarkable resemblance to the coeval formations in the Mediterranean region, whereas the deposits of New Jersey and the Atlantic coast are similar to those of England and northern Germany. Thus Roemer was the first who made a differentiation between northern (boreal) and southern (Tethyan) faunistic provinces. Later on, the Cretaceous Texan and Mediterranean faunas were essential parts of the "Mésogée", a marine area established by Henri Douvillé (1900) and defined by the presence of rudists and larger foraminifera, but apparently that author did not know the corresponding publications of Roemer.

During the Early Cretaceous, extensive carbonate platforms developed in wide areas of SW Europe (Urgonian facies). Stratigraphic correlation has been made possible by orbitolinid larger foraminifera, being excellent markers for correlating the different platforms and at the same time very useful for palaeobiogeographic reconstructions within the time interval Hauterivian-early Aptian. Endemic Early Cretaceous orbitolinids, mostly comprising small conical species with a simple megalospheric embryo, are generally restricted to the infralittoral zone of carbonate platforms. Different endemic orbitolinid assemblages characterise the North- and South-Tethyan margins, as well as the Pericaribbean region. In contrast, cosmo-

politan forms, mostly comprising large and flat species with a complex megalospheric embryo, are spread over the infra- and circalittoral zone. This relatively extensive biospace as well as the meroplanktic embryonic stage of the latter group seem to be the main reasons for their dispersal by marine currents.

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### **Mark Williams**

Department of Geology, The University, Leicester, LE1 7RH, UK.

### ***The Ostracod Supremacy***

Ostracods have survived 500 million years of Earth history. How did they become such a successful and long-lived group? The origins of the marine bivalve arthropod micro-benthos lie in the Cambrian, with three groups of small arthropods, the Bradoriida, Phosphatocopida and Ostracoda, that belong to the evolutionary history of crustaceans *sensu lato*. While bradoriids and phosphatocopids were extinct by the early Ordovician, ostracods became a numerically dominant entity of the arthropod micro-benthos. The physiological and ecological adaptations which favoured the ostracods, but which deleted the Bradoriida and Phosphatocopida, are intimately related to the evolution of the Early Palaeozoic oceans.

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### **Jan Audun Rasmussen**

Natural History Museum of Denmark (Geology), University of Copenhagen, Øster Voldgade 5-7, DK-1350 Copenhagen K, Denmark.

### ***Utilising microfossils with poorly-defined phylogenetic relationships in palaeobiogeographical studies: Conodonts from the Ordovician***

Palaeobiogeography, which deals with patterns in the spatial distributions of organisms, is a discipline that has developed rapidly during the past three decades. It has long been known to be a very important tool in the making of palaeogeographic reconstructions. The lack of detailed phylogenies in many fossil taxa, however, has made it a substantial challenge to produce reliable biogeographic models using many of the traditional methods in historical biogeography.

The data matrix used as a base for the present talk consists of 89 conodont species and 8 localities from areas surrounding the Iapetus Ocean during the early Darriwilian (Middle Ordovician). The phylogenies of most conodont taxa are poorly known or heavily disputed, implying that only a restricted number of analytical methods are applicable. Two main groups of methods are discussed. All methods use a data matrix consisting of taxa versus localities in a binary (presence/absence) structure. The first group consists of selected similarity methods in connection with multivariate cluster analysis techniques. The generated clusters show simple and 'neutral' patterns, which commonly have been used to calculate relative palaeogeographic distances. The second group includes Parsimony Analysis of Endemicity (PAE). PAE allows an interpretation of the occupation of an area by taxa, verification of the relationship among areas, and identification of assumed areas of endemism. Despite some criticism, PAE is regarded as useful in palaeobiogeographic analyses of many fossil assemblages, including conodonts, because it allows analysis of historical information from the geographic distribution of taxa, even if phylogenetic analyses are poor or completely lacking. The analyses reveal that both the choice of similarity/distance coefficient and filtering of the input data are very important in similarity methods. A data matrix consisting of the total fauna including pandemic species gives a different result than a data matrix consisting of solely platform ('cratonic') taxa. This difference was not observed in PAE analysis by use of the present data set.

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### **John Marshall**

School of Ocean & Earth Science, University of Southampton, National Oceanography Centre, European Way, Southampton, SO14 3ZH, UK.

### ***The Greening of the Devonian world***

It is now clear that land plants had originated by at least the Ordovician. However, for much of the Early Palaeozoic times land plants remained rather diminutive. It was only during the Mid Devonian that they underwent a number of step changes in their size, morphology and reproductive systems. These evolutionary changes were paralleled by the establishment of Devonian forests. One of the changes in reproductive system was the development of hetero-



spory where plants produce large numbers of small microspores and a much smaller number of larger megaspores. These megaspores can reach over 1 mm in size and were no longer easily dispersed by the wind. This makes the whole plant relatively immobile and accelerates the change to provincialism. However, it also gives us a new tool by which we can start to recognise palaeogeographic patterns and migration routes within the Devonian world.

Devonian world palaeogeographies show at various times a separation between Euramerica and Siberia in the equatorial and low southern latitudes and a more significant separation by a wide ocean from the southern continent of Gondwana. There are unique morphological combinations of microspore and megaspore that are known to originate within East Gondwana and which can be tracked into Euramerica. Geographically and temporally intermediate spore microfloras show that they migrated via the volcanic arcs of the Altaids that acted as a gateway between Siberia/Euramerica and East Gondwana. It appears that different arcs had different spore microfloras and provided distinctly different routes. In tandem with this northern movement, there was the southwards migration of a major element of the Devonian forests, the progymnosperm *Archaeopteris* from an origin within the late Mid Devonian of Euramerica to Australia via the northern margin of Gondwana. This migration was accomplished within the time-span of a few million years. We can now attempt to understand this pattern because of the concept of continental drift and plate reconstructions. Perhaps more significantly we can see the routes of inter-continental migration as akin to the land bridges that were much invoked by the opponents of Alfred Wegener in trying to explain global plant and animal distribution without the possibility of continental drift.

### **Marcelle K BouDagher-Fadel**

Department of Earth Sciences, University College London, Gower Street, London, WC1E 6BT, UK.

### **Plate Tectonics and the Cenozoic Development of the Larger Benthic Foraminifera**

Tectonic changes during the Cenozoic influ-

enced the biotic distribution within the oceans, in particular, that of the shallow larger benthic foraminifera (LBF). They created two main bioprovinces of Central America and of Tethys, which itself is divided into two subprovinces, Western Tethys or the Mediterranean, and the Eastern Tethys or the Indo-Pacific.

The Cretaceous-Paleogene crisis wiped out over 80% of the Maastrichtian LBF and the Early Paleocene was a recovery period for LBF. It was not before the Late Paleocene that morphologically larger miliolines (including large fusiform alveolinids) and rotaliines (especially nummulitids and orthophragmiids) appeared and spread throughout Tethys. The Late Eocene-Oligocene boundary (33.90Ma) witnessed a major change in global climate with a move into an 'ice house' climate, triggered by the opening of the Tasmanian Sea which led to the expansion of the Antarctic ice cap. This boundary saw a large number of extinctions, with the large nummulites and alveolinids disappearing from Tethys.

In the American province, however, the post K-P recovery period was longer than in Tethys, and it was not before the Middle Eocene that the rotaliines developed new evolutionary lineages, *Lepidocyclina*, *Eulepidina* and *Miogypsina*. The occurrence of a series of global sea-level regressions in the Middle Eocene and Early Oligocene facilitated transoceanic eastward migration of these LBF from American to West Africa, subsequently followed by a northerly migration towards the Tethyan province in the Middle to Late Oligocene. The LBF which followed an opposite southerly route of migration from West Africa to South Africa gave rise in the Burdigalian to similar but different local stocks which cannot be placed in evolutionary schemes for the other known bioprovinces. Presumably because of the dynamics of ocean currents, the reverse migration of alveolinids and discocyclinids from Tethys to the American province never occurred. However, even eastward trans-Atlantic migration stopped after rising sea-levels in the Early Oligocene finally separated the provinces. Subsequently, LBF in the two now isolated provinces exhibited independent but parallel lines of evolution.

The Tethyan descendants of the American lepidocyclinids and miogypsinids continued to spread along the Tethyan margins thriving



ing on shallow carbonate platforms, filling the empty niches previously occupied in the Eocene and Early Oligocene by the nummulites and alveolines. They evolved into well-defined phylogenetic lineages that became very successful, evolving many times and playing an important part in defining the biostratigraphy of the carbonates of the Mediterranean and the Indo-Pacific subprovinces. During this period, the Mediterranean subprovince showed high stability and low rate of speciation, while the Indo-Pacific subprovince showed higher speciation rates with progressive evolution, driven by K-selection, but curtailed episodically by high extinction rate.

In the Serravallian, plate collisions sealed off the eastern proto-Mediterranean from the proto-Indian Ocean. The demise of the descendants of the American lepidocyclinids and miogypsinids in the Middle Miocene of the Mediterranean before the late Miocene 'Messinian Salinity Crisis' confirms that the closure of the gateway between the Mediterranean and the Indian Ocean resulted in Middle Miocene cooling of the Mediterranean. By the Late Messinian (5.65 Ma) most LBF in the Mediterranean had become extinct. Another casualty of the closure is *Cyclodolops*, which seems to have disappeared from the proto-Mediterranean after the closure of the sea link, but continued to thrive up to the present day in the deep photic zone of the Indo-Pacific and Australia. In the Indo-Pacific subprovince, the cooling trend reduced the diversity of the LBF until the miogypsinids disappeared completely at the end of the Serravallian with the lepidocyclinids lingering locally until the Late or possibly Early Pliocene.

In conclusion, the LBF are important indicators of the locus of carbonate facies evolution, palaeogeography and palaeotemperature, but their distribution can only be fully understood in terms of the Cenozoic plate tectonics that drove the drifting of the continents.

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#### **John A. Barron**

U.S. Geological Survey, Menlo Park, CA 94025, USA.

#### ***The Eocene marine diatom record: response to plate tectonics, falling sea level, and paleoceanography***

Knowledge of marine diatom biostratigraphy

and evolution during the Eocene Epoch (~56 to 34 million years ago) was based on the detailed study of classic land sections such as the Oamaru Diatomite of New Zealand (Late Eocene, ~36 to 34 Ma), the Oceanic Formation of Barbados (Middle Eocene to Early Oligocene, ~43 to 31 Ma), the Kellogg Shale of California (Middle Eocene, ~41-40 Ma), various sections from the Russian platform (Paleocene to Middle Eocene, ~63-42 Ma), and the Fur Formation of Denmark (earliest Eocene, ~55.8-54.5 Ma). During the past 35 years, study of deep sea cores recovered by the Deep Sea Drilling Project, the Ocean Drilling Program, and more recently by the Integrated Ocean Drilling Program have greatly expanded our knowledge of geographic and temporal coverage of the Eocene marine diatom assemblages. These improvements indicate that marine diatoms may hold the key to several important questions regarding the effects of climate evolution through the Eocene.

Tectonic and climatic events have affected both the distribution and floral characteristics of diatomaceous sediments through time. During the Eocene Epoch, the oceans experienced major changes, as the Arctic Ocean and the seas around Antarctica expanded, while extensive continental seaways in eastern Europe and western Siberia contracted due to the movement of continents and a steady fall in global sea levels. The Early Eocene (~56 to 50 million years ago) witnessed the warmest climates of the Cenozoic with average Arctic temperatures approaching 20°C. However, the Middle and Late Eocene interval between ~50 and 34 million years ago was marked by progressive cooling of polar regions and development of the global cryosphere, starting with the appearance of seasonal sea ice in the Arctic and culminating in the rapid expansion of ice-sheets on Antarctica. During this major cooling phase, mid latitude coastal upwelling regions developed, leading to the evolution of distinctive provincial diatom assemblages. A review of Eocene marine diatom biostratigraphy will be presented, emphasizing improvements in our knowledge of correlation of diatom events with geologic time and palaeoceanographic/palaeoclimatic events.

## 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 Schleswig-holsteinischen 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

**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*

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# Specialist Group News

## Foraminifera Group Report

KATE DARLING & PHIL SEXTON

The UK Integrated Ocean Drilling Program (IODP) held a workshop on '*Palaeoclimate Forcings & Feedbacks*' at Cardiff University (16–17 February, 2011). While this was not a strictly micropalaeontological workshop, there were many talks of potential interest to micropalaeontologists, sparking many discussions/ideas of the palaeoclimatic application of microfossils. Because of the wealth of microfossil-bearing sedimentary sequences provided by the IODP, we would like to encourage greater participation by TMS members in IODP-related activities and to subscribe to their mailing list (email: [ukiodp@bgs.ac.uk](mailto:ukiodp@bgs.ac.uk)).

A most enjoyable and informative Foraminifera and Nannofossil Groups Joint Meeting was held this year on the 27–30th June in Kraków, Poland. It was combined with the Eighth Polish Micropalaeontological Workshop MIKRO-2011 at the AGH University of Science & Technology and the Institute of Geological Sciences of the Jagiellonian University. The theme of the meeting was '*Integrating records from the oceans and epicontinental seas*', and the abstracts are published together with speaker scientific contributions as a special publication (17) of the Grzybowski Foundation in a beautifully presented book. Two reports on the meeting are included in this newsletter (Grants-aid reports, pp. 27–28 and Meeting report, pp. 42–43).

We have traditionally alternated the Foraminifera and Nannofossil Group annual Joint Meetings between the UK and continental Europe and next year it is Edinburgh's turn to host the joint meeting in Scotland (assuming we are still part of the UK by then!). Arrangements are already progressing well and we hope to attract as many of you as possible to come to this

lovely city. The meeting will be held on the 21<sup>st</sup> and 22<sup>nd</sup> June 2012 with a working title of '*Interdisciplinary Advances in Foraminiferal and Nannofossil Research*'. This will be followed by a field trip on Saturday 23<sup>rd</sup>. Put it into your diaries now!

The first treat, prior to the main meeting will be a two day workshop for benthic foram lovers on '*North East Atlantic Benthic foraminifers: A new taxonomy for the 21st century*'. This will be held at the charming and now globally famous (ever heard of William and Kate?) university town of St Andrews. Should I mention that it is slightly attractive to golfers also? Participants will be transported there from Edinburgh by bus.

The main meeting will be held at one of the University of Edinburgh's conference centres near to spectacular Arthur's Seat, the remnant of a long extinct volcano in the Queen's Holyrood Park. From here you can walk to sample the pleasures of the medieval 'old' town or the neoclassical 'new town'; both are UNESCO World Heritage Sites. The conference centre has a full range of reasonably priced accommodation for all. We hope to attract sponsorship to keep costs low for our younger researchers to attend and we will allow them the maximum time possible to present their work. Registration and welcome reception will be held from 18:00 on June 20<sup>th</sup> (midsummer!!). There will be a conference BBQ on the evening of the 21<sup>st</sup> and we will let you loose on the town for the evening of the 22<sup>nd</sup>. The field trip on the 23<sup>rd</sup> will take you to Siccar Point to see Hutton's unconformity (a pilgrimage for all geologists!) and then on to unlock the secrets of the Carboniferous reefs and microfossil containing sediments of the East Lothian coast.

# Silicofossil Group Report

TANIEL DANELIAN

The next Silicofossil Group Meeting will take place in Lille on September 5-6<sup>th</sup>, 2011. The third circular was out in early July and the programme has been now finalized (see Conference Announcements pp. 4-7). Speakers

come from fourteen different countries (France, Belgium, UK, Germany, Switzerland, Poland, Spain, Mexico, Bolivia, Russia, Armenia, India, China and Japan).

## Palynology Group Report

FABIENNE MARRET & IAN HARDING

The 4<sup>th</sup> Joint Meeting of the Silicofossil and Palynology Groups took place in Tromsø (Norway), at the Department of Geology (University of Tromsø), on the 31<sup>st</sup> of March 2011, following a two-day workshop organised by Catherine Stickley and Ian Harding on '*Cretaceous-Paleogene Palaeoenvironments, tectonics and biostratigraphy of the Arctic and Subarctic*'. The joint meeting was organised by Catherine Stickley and Fabienne Marret, with the help of George Swann and Phil Jardine. 36 participants attended the meeting, from 7 countries around the world, and a wide range of very interesting talks were given.

A total of 16 talks were given, kicked off by Gitte Laursen (Statoil ASA) with '*If microfacies does not work, then what?*'. This talk highlighted the complementarity of macrofossil studies and palynology to resolve biostratigraphical issues. This was followed by a superbly illustrated presentation by Alex Wolfe (University of Alberta) about '*Middle Eocene sediments from Northern Canada providing evolutionary insights concerning non-marine diatoms and scaled chrysophytes*', documenting the exceptional preservation of a variety of different organisms, including diatoms, testate amoebae and chrysophytes in organic-rich lacustrine sediments deposited in a kimberlite diatreme. The discovery of several taxa including the scaled chrysophyte *Synura* and the diatom *Pinnularia* have been used to constrain multi-gene molecular phylogenies. This was followed by a talk from Margaret

Collinson (Royal Holloway University) on '*The value of palynological mesofossils*', demonstrating the types of information that can be gleaned from the >125µm fraction, and presenting palaeogeographic, palaeoenvironmental and biostratigraphic information about *Azolla*, other megaspores and seeds from the Eocene of the Arctic Ocean.

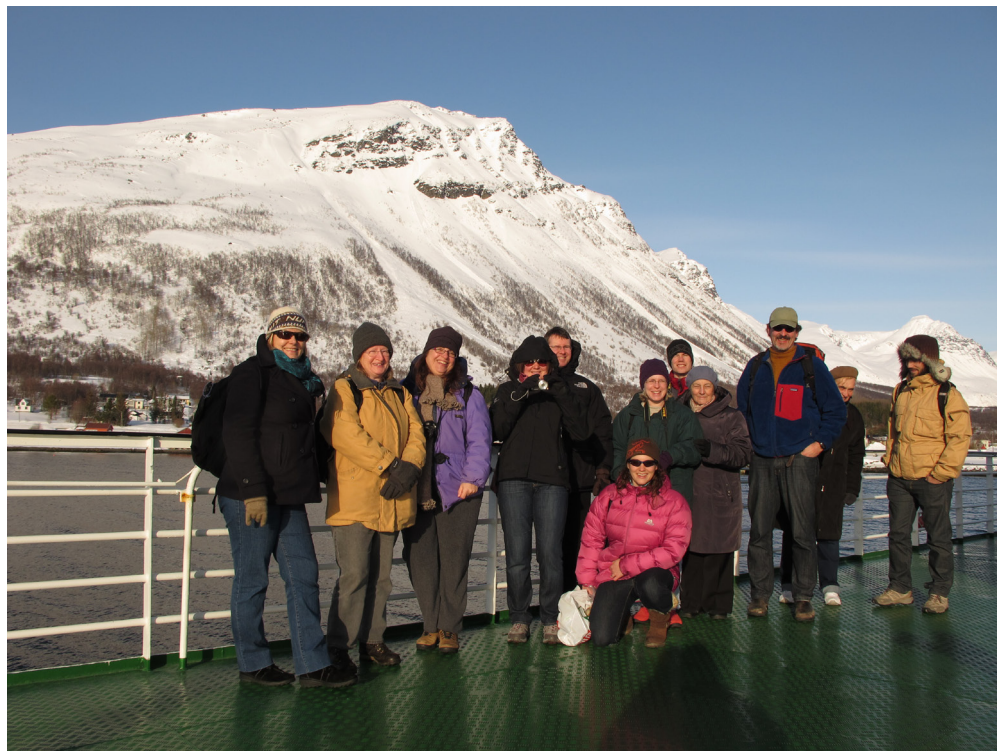
After coffee, Dave Harwood (University of Nebraska) introduced us to '*New developments in CONOP*', or Constrained Optimization, a quantitative biostratigraphic technique that allows synthesising incomplete microfossil sequences and talked of its application to sequences recovered during the ANDRILL project. Jonao-taro Onodera (Japan Agency for Marine-Earth Science and Technology) presented his work with Kozo Takahashi (Kyushu University) on '*Diatom and silicoflagellate sinking fluxes and their response to oceanographic conditions in the Bering Sea and the subarctic North Pacific between 1990 and 1999*', highlighting the impact of the Pacific Decadal Oscillation with diatom assemblage composition. The last talk of the morning session was given by Fabienne Marret (University of Liverpool), on '*Dinoflagellate cysts in high latitudes: tracers for past environmental reconstructions in the Arctic and surrounding seas/oceans*', documenting decades of collaborative work to construct a robust modern dinocyst database for quantifying past sea-surface conditions.



Following our lunch sponsored by Shell, Alan Kemp (University of Southampton) detailed '*Giant diatom mat deposits marking migration of the Antarctic Polar Front through the mid-Pleistocene Transition*', highlighting the relationship between polar front migration and orbital forcing – and also highlighting the difficulties faced when trying to publish in certain high-impact factor journals! This was followed by the University of Oslo's Barrie Dale contending that '*Peridinites being most likely siliceous dinoflagellate cysts*', offering a re-interpretation of specimens from a Paleogene diatomite from Barbados. Andrey Glandekov (Geological Institute of Russian Academy of Sciences) took us to Russia, with his talk about '*Marine diatoms from the Paleogene of northeast Kamchatka*', where new sampling along a most impressive series of coastal successions have yielded a very rich diatom flora allowing to better define the stratigraphy in this region. Ian Harding (Univer-

sity of Southampton) closed the first afternoon session by contradicting Barrie's earlier presentation with a talk on '*Siliceous dinoflagellate taphofacies from the Oligocene Sieblos fossil-lagerstätte, Germany*', which presented a rare group of siliceous dinoflagellate specimens from the subfamily Lithoperidinioideae, which he interpreted as representing thecate motile stages and not cysts!

After a short break, Wieslawa Król (Kraków Research Centre/University of Bergen) provided an elegant discussion describing her preliminary results on the '*Taxonomy and biostratigraphy of Late Cretaceous and Paleocene dinocysts from three wells in the southwestern Barents Sea*', providing new biostratigraphical information from a poorly studied region for this time period. Kjell Bjørlund (University of Oslo) followed this with a presentation with the startling title '*Exotic radiolarians off northern Svalbard! How can*



this be and what does it mean?', demonstrating that plankton collected in 2010 has revealed the occurrence of sub-tropical and tropical fauna, never recorded before this far north. This indicates possible pulses of warm Atlantic waters in the Arctic Ocean. Tatania Oreshkina (Geological Institute, Moscow) then went on to provide an extremely accessible presentation detailing the '*Late Paleocene-Early Eocene hyperthermal events in biosiliceous deposits of Western Siberia and adjacent regions*', describing these deposits that are generally not well known to non-Russian speakers, providing details of the diatom and silicoflagellate records. Itsuki Suto (Nagoya University) then delivered a very entertaining talk on '*Middle Eocene diatoms resting spores from the central Arctic Basin*', describing resting spores from the ACEX IODP 302 expedition. Ebridians were not left out either, with a very fine presentation by Jakub Witkowski (University of Warsaw) entitled '*Ebridian assemblage variability in response to middle Eocene greenhouse warming of the Southern Ocean*', discussing the Eocene succession re-

covered at ODP Site 748. These findings have provided new palaeobiological information on this poorly known fossil group. The final talk of the meeting was delivered by the co-convenor, Cathy Stickley (University of Tromsø), with her talk on '*The Big Freeze: sedimentary micro-fabrics revealing sea ice-driven seasonal flux event in the Arctic Middle Eocene*', presenting her exciting records of the oldest ice diatoms from the IODP Leg 302 ACEX record.

An extremely entertaining day of talks was elegantly rounded off by a wine reception, kindly sponsored by TMS, which was held at the Department of Geology, providing, as had the Workshop which preceded the Sili-Paly Meeting, ample time for convivial discussion amongst the delegates. The three days were rounded off by the TMS dinner at a fine local restaurant Sjøgata XII, generously sponsored by Statoil ASA, with delegates wondering where the 5<sup>th</sup> joint meeting of these two TMS specialist groups might take them next!

## **Nannofossil Group Report**

**TOM DUNKLEY JONES**

The Nannofossil Group continues to follow some long-term positive developments. First of all the annual Foraminifera and Nannofossil Joint Group Meeting, this year in Kraków (see separate reports, pp. 27-28 and 42-43), was, once again a success. Second is the continued development of links between the International Nannoplankton Association (INA) and TMS. In some ways these two organisations overlap substantially in the European 'heartlands' of TMS, but INA has a substantial US presence as well as in Asia, Australasia and Africa. Conversely TMS has a great deal to offer in linking INA with the wider micropalaeontological community, a clear example being the TMS annual Foraminifera and Nannofossil Groups Meeting, which tends to fill a gap between

the biennial INA meetings. What could be interesting are developments taking place independent of both societies but in which both should continue to maintain an active interest. First is the development and growth of the online taxonomic database, nannotax.org, which is progressing significantly, largely thanks to the dedication of Jeremy Young, Paul Bown and Jackie Lees. I would strongly encourage all nannofossil workers who have not browsed this site to take a look - think updated and interactive 'black book' (nannofossil workers will know what I mean!). There is also plenty of opportunity to interact with other taxonomists to share and discuss concepts and help the community to develop and maintain taxonomic knowledge. It is also an excellent vehicle for

sharing knowledge, without cost or borders, to a global community.

Following on from ways to maintain knowledge, the second ongoing point to watch is the future of training and development of nannofossil expertise. With the development of the TMS foundation, the society, universities and industrial professionals need to keep thinking about opportunities to deliver the best micropalaeontological training for the future. For the Nannofossil Group - again along with

the INA - we need to keep an active watch on where the training needs are, how they can be met and, of course, how they can be funded. On a final note, I'd like to highlight the two job opportunities for micropalaeontologists at London's Natural History Museum (Museum Scientists - see the NHM's jobs webpage - closing date 7 August!). This holds some hope for maintaining a micropalaeontological presence at the NHM, and you never know, maybe even a nannofossil specialist.

## **Ostracod Group Report**

**MATT WAKEFIELD (BG GROUP) AND JOHN WHITTAKER**

### **LEICESTER, 4TH JUNE TMS SPRING OSTRACOD GROUP MEETING,**

The meeting was organised and hosted by David Siveter and Mark Williams in the Department of Geology, University of Leicester. Our thanks go to David and Mark for this and to the university for allowing us to use its facilities. With over twenty people and ten talks this meeting, following on from the well-attended meeting in October 2010, marks a sustained resurgence in activity. Matt Wakefield (BG Group) has kindly provided a concise summary of the talks:

Alan Lord (Forschungsinstitut Senckenberg, Frankfurt-am-Main) and Maria Cabral (University of Lisbon) presented '*Ostracod evidence and the Neolithic environment of Rio Sizandro, western Portugal*'. The work was based on borehole material from around Benfica that penetrated river valley deposits, dated at c. 6500-6100yrs BP, which cut into Upper Jurassic strata. The area was originally flooded with sea-water but following a sea-level fall (6-7ky BP) the valley began to fill with sediment, some of which may have been agriculturally mediated. Brackish water ostracods were present in the base of the succession including *Cyprideis torosa* (un-noded) and *Leptocythere porcella-*  
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*nea* with occasional *Callistocythere murrayi*. Rare, poorly preserved freshwater ostracods (*Ilyocypris bradyi*, *Ilyocypris inermis* - a first record in Portugal, *Limnocythere inopinata* and *Darwinula stevensoni*) were also present.

Dinah Smith (University of Leicester) discussed some of her doctoral work in the English fens; '*Once upon a time.....there was a roddon*'. So, what is a roddon? You may indeed ask. Basically it is the dried raised bed of a river or tidal-creek. They can be seen from aerial photographs or better still, from IFSAR satellite images and are visible due to seventeenth century draining leading to the peats drying, shrinking and compacting thus allowing the sands/silts/gravels of channels to appear in bas-relief. To date Dinah has been working on describing the sedimentology of the roddon at the Mist Farm site that was exposed during quarrying. She has recovered fossil material of foraminifera, ostracods, fish scales and teeth but has not described them yet. The work is part of a multi-disciplinary approach with much attention focused on the archaeology with eel-traps having been found along with woven nettle material and pots containing food.

Ray Bate (Global Exploration Services) dis-



cussed his Oil Industry related ostracod work: 'Early Cretaceous Pre-Salt basins of the South Atlantic'. Ray described the current two-phase opening of the South Atlantic and how this is reflected in the stratigraphy of the basins along the West African and South American margins. The first phase is early Neocomian while the Barremian Atlantic-Hinge second phase of rifting is of particular interest as it broke up the large-scale non-marine lacustrine systems that were contiguous between the now separate continents. The salinity of these lakes was not controlled by any marine connection. Ray described the basic ostracod biozonation from the Kwanza Basin and how it reflects sequence stratigraphy and/or climate forcing. The ostracod fauna was generally of low diversity but contained high specimen numbers.

Ian Boomer and Chris Nash (University of Birmingham) talked about Chris' final year undergraduate project entitled '*An early post-glacial multiproxy record from lowland NE England and a new post-Hoxnian record for the UK*'. (Good look with your 'finals' Chris!). This work looked at sediments inland from Bamburgh Castle, the peaty upper portion of which have previously been investigated palynologically. Ostracods were recovered from the lowermost laminated clays and silts dated at 15-20ky that overlay glacial sediments. *Candona candida* dominates the fauna along with the cool-water *Cytherissa lacustris* and *Limnocythere sussenbornensis*. Application of the MOTR method indicates January and July temperatures of -8 to +3°C and 12 to 23°C respectively.

David Siveter (University of Leicester) talked about '*Exceptionally preserved myodocope ostracods from the Herefordshire (Silurian) Lagerstätte: implications for the systematic affinity of palaeocopes*' and illustrated with computer 3-D animations the latest two ostracods to be discovered: *Nasunaris flata* and an as yet unpublished species, informally called 'wingy' due to

its posterero-dorsal? alae that make it look like a 1950's Cadillac. These are both Cyndroleberid myodocopes with preserved softparts including eyes, gill structures and well developed second antennae suggesting a nektobenthic life mode. Both are huge ostracods, 10-12mm in length. What is of particular interest is that the hard-part morphology indicates that these species ought to be palaeocopes but the soft-parts clearly show this not to be the case, suggesting our understanding of Palaeozoic ostracod taxonomy may be erroneous.

For further information on cyndroleberid ostracods you should check out Anna Syme's 2007 Ph.D. thesis '*A systematic revision of the Cyndroleberididae (Crustacea: Ostracoda: Myodocopa)*', which can be downloaded from <http://repository.unimelb.edu.au/10187/2025>.

Robin Whatley (Aberystwyth University), following on from David Siveter's theme of the hard parts cannot always be trusted taxonomically, discussed in his inimitable fashion '*An unusual ostracod from down under*'. The Australian ostracod in question has many features that are taxonomically confusing. It was originally thought to be a lancelate shaped trachyleberid without an eye tubercle. However, its lateral flattening and large well-defined marginal areas with numerous normal pores are also at odds with this. In addition it has a pectodont rather than an amphidont hinge suggesting it may be an indo-pacific pectocytherid. Eventually Robin decided that the presence of five adductor muscle scars was the defining taxonomic character i.e. the species is a bythocytherid, a fact that was agreed upon by many in the audience. However, work to solve this taxonomic conundrum is set to continue as bythocytherids are not known to possess sieve pores. It was particularly nice to see Robin back in harness after his long illness and recuperation.

Mike Ayress (Ichron Ltd), using data from Sta-

toil Well 35/a-F-1H defined 'A new record of *Aratrocypris* from the Early Cretaceous of the North Sea: a range extension for the genus'. This strange looking genus has a 'plough-like' extension to its anterior margin that is considered to have been used when feeding across the sediment. It occurs at two horizons within the well succession; firstly as part of a reworked Maastrichtian assemblage within the Lower Palaeocene and secondly within the Valhall Formation. The range can now be extended back from the Coniacian into the Lower Barremian/Hauterivian.

Mohib Khan (University of Leicester) described his doctoral work that asked the question 'Do ostracods define patterns of Ordovician climate change'. The end-Ordovician extinction accounted for 5-10% of all species known at that time, although ostracods appear not to have been affected. Mohib was able to show that the

Late Ordovician to Early Silurian ostracods from Iran were similar to those from the US, i.e. ostracods from Gondwana, Laurentia and Baltica were similar. Recent isotopic data suggests that for much of Ordovician times the earth experienced a 'greenhouse' climate, although a glaciation is known from the end of that period. Chitinozoan data suggest movement of an oceanic 'polar front' from 60°S to 40°S during this Late Ordovician interval. Using ordination analysis of ostracod data, Mohib separated out two ostracod biotopes within data from six Laurentian localities of Caradocian age. These are believed to represent tropical and subtropical settings.

Dave Horne (Queen Mary University of London) talked about his recent sabbatical in Gatineau and Ottawa, Canada, where he worked on 'The Delorme Collection and database of Canadian non-marine ostracods'. Denis Delorme's collection amounts to some 30,000



ostracod records from 5,000 separate locations. The database records locations, species identifications and highly detailed environmental information both chemical and physical. The sampling was often based on a systematic grid (selecting the nearest water body to the grid point) or along major highways. Dave is trying to harmonise North American and European non-marine ostracod taxonomy. He suggested that *Candona acutula* Delorme, 1967 may be synonymous with *Fabaeformiscandona levan-deri* (Hirschman, 1912) although further work is required. Dave has also chased down the actual location of all the type-material and this will be documented in a forthcoming publication. Finally, Dave showed us some images that suggested his sojourn in Canada was not all work-oriented, including a striking photograph of him wearing a hat we had not seen before.

Ian Boomer, Sarah Hawkes and Phil Copestake talked about '*Early Jurassic Microfossils and the Toarcian Oceanic Anoxic Event (TOAE) in SW England*'. A new section at Hurcott, near Ilminster in Somerset has become available that has alternating muds, silts and friable limestones of latest Pleinsbachian through Toarcian age. The ostracods recovered by Sarah in her final year undergraduate project from this shallow-water succession can easily fit into the existing ostracod zonation for this time period. The foraminiferal fauna recovered was more diverse than the ostracod fauna, though the former were all long-ranging so could not help refine the age dating. C isotopic work on the Hurcott section and that at Mochras reveal the position of the OAE but the former is shelfal, not basinal. Further work is planned in Gloucestershire, at Thorncome in Dorset and from the Kerr-McGee 97/12-1 well in Lyme Bay to understand the development of the TOAE in shelfal settings.

John Whittaker (NHM) writes: After the scientific meeting most of the party stayed on into the Saturday evening and, accompanied in

many cases by our wives, proceeded to the 'White Horse', Leire, quite near to the Siveters' country residence. Like the famous Monsieur Rick of the film Casablanca, the proprietor, also called Rik, did us proud. It was hoped, with a well-known and successful entrepreneur in our presence, that the wine might be sponsored, but even though this was not to be, a most pleasant dinner was enjoyed by all. David and Pauline Siveter are also to be gratefully thanked for their personal hospitality to several members of the group.

The next event organised by the Ostracod Group will be a field meeting in Dorset, probably in October 2011, to sample from the Middle Jurassic of the Fleet north shore, much of which normally requires special permission for access/sampling and has featured in classic papers such as P. C. Sylvester-Bradley's 1948 Geological Magazine paper on the Bathonian Ostracods of Boueti Bed. We will also take the opportunity to sample from the Purbeck and possibly the Wealden sediments of the Dorset Coast. I have already had the occasion to speak to my good friend, Don Moxom (the Fleet Warden), on another matter. I therefore mentioned our plan to visit the Fleet shore for our Autumn TMS Ostracod Group Field Meeting for which we would require access and permission to collect. To this he replied that there would be no problem, so this augurs well. More information will follow in due course via the Website and by e-mail.

John Athersuch adds that the Hotel he stayed in was closed down by the Fire Service as a result of a complaint he made about safety! Clearly the influence of the TMS spreads beyond the world of micropalaeontology.

# TMS Grant-in-aid Reports

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## *Reflections on the 8<sup>th</sup> European Palaeobotany-Palynology Conference, Budapest 2010*

JANINE PENDLETON, UNIVERSITY OF SHEFFIELD

In 2009/2010 I was embarking on the second year of my PhD, and was the lucky recipient of a TMS Grant-in-Aid bursary. I study Carboniferous palynology and palaeobotany of the Bristol Coalfield, at the University of Sheffield. These rocks span a critical period of global vegetational turnover, and the main aim of my PhD is to understand the nature and dynamics of these changes in the Bristol coal measures flora during this period.

As is customary at this point in your career, I was keen to present the progress of my research wherever and whenever humanly possible. Sheffield, London, Birmingham, Warsaw, Ghent; a seemingly endless stream of conferences flew by. But by far the most memorable was the 8<sup>th</sup> European Palaeobotany-Palynology Conference which was held in Budapest, Hungary. It was a very daunting prospect; this was the first international conference, and I was also going to present my research.

The conference was hosted in the beautiful city of Budapest. The city itself is split into two, with the mighty Danube flowing through its heart. The historic and hilly district of Buda on the west bank, and the flat lying more urban district of Pest on the other. Before and after the conference there was ample time to visit bath houses, museums, markets and generally wonder around and take in the atmosphere.

The venue for the conference was the Hungarian Natural History Museum, with talks spread over four days with an astonishing thirty-four symposiums! Luckily, there was the perfect symposium for me; a three hour session on Carboniferous wetland plant ecosystems and their intricate response to climate, geography and tectonics. Chaired by Chris Cleal and Barry Thomas, we were guided through an afternoon of stimulating talks on all aspects of the Carboniferous peat swamps. Sedimentology, taphonomy, palaeobotany, palynology, biostratigraphy, tectonics; every facet of this complex ecosystem was covered during the suite of 9 talks. My presentation was at the tail end of the first session, just before a well deserved tea break (which I really needed by this point!). It was amazing to present my work to so many researchers studying contemporaneous ecosystems from around the globe. One of the nicest parts was to finally put author names to faces for some of the European researchers who do not often hop across the channel to the UK conferences.

After a very successful conference and a truly amazing trip, I want to thank Jeremy Young and the TMS committee for their generous grant. After this conference, there was still a little money left to part-fund my attendance and presentation to the CIMP General Meeting 2010 in Warsaw, Poland. Thanks to everyone at TMS for all your support at this very early stage in my palynological career!



## ***TMS Foram and Nannofossil Groups joint Meeting, Kraków, Poland***

**ANNEKATRIN ENGE, UNIVERSITY OF TÜBINGEN**

The historic town of Kraków was the location for this year's TMS Foraminifera and Nannofossil Groups Joint Meeting. It was held from the 26<sup>th</sup> to the 30<sup>th</sup> June 2011, together with the MIKRO-2011 meeting. My contribution to the conference was a poster presentation with results from my PhD work on the seasonal differences of the benthic foraminiferal community

in the abyssal Northeast Pacific.

The lectures were held at the Jagiellonian Library and the AGH University of Kraków. For three days, a fascinating journey through the world of fossil and recent micro-organisms was presented with talks from Master students to experienced scientists. Owing to my personal



*Conference participants during the field trip at the bank of the Strykawka river.*

research interests, I found the talk by Andy Gooday on deep-sea forams as well as the PAST workshop by Øyvind Hammer most interesting. Meeting and being able to ask questions to one of the persons behind the data analysis program with an understanding for the statistics problems of scientists was a great experience.

The two key-note lectures gave a great introduction to the research on microfossils in Poland and the geology of the Carpathians. The visit of the Grzybowski Foundation on Monday showed the great enthusiasm of Mike Kaminski and his colleagues for the work of the founding fathers of our science and its appreciation. During the relaxed poster session on late Tuesday afternoon, we had the chance to present our work whilst enjoying a glass of wine.

The full-time (sadly rainy) field trip on Wednesday led us into the Carpathians south of Kraków where we visited five locations from the Upper

Cretaceous and the Paleocene, guided by Adam Gasinski and other Polish scientists. Highlights were the fabulous story about a dragon's siege over Kraków and his fall, the hidden waterfall and the dinner in an old wooden restaurant with traditional cuisine and music.

Besides talks, posters and discussions, we still had time to discover the host city a bit. The numerous bars and localities around the beautiful market place in the old town gave great opportunities to meet with other participants of the TMS and to relax with a glass of Zywiec.

Finally, I want to thank The Micropalaeontological Society for supporting my participation in the TMS meeting. It was a great opportunity to introduce the results of my work to an international audience and also to hear about the recent findings in foraminiferal studies and to make new acquaintance with other researchers.

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# Officers of the Society

## **Prof. M. Paul Smith** (President)

School of Geography, Earth  
and Environmental Sciences  
University of Birmingham  
Edgbaston  
Birmingham B15 2TT, UK  
Tel: +44 (0)121 414 4173  
m.p.smith@bham.ac.uk



## **Dr Jennifer Pike** (Secretary)

School of Earth and Ocean  
Sciences, Cardiff University  
Main Building, Park Place  
Cardiff, CF10 3YE, Wales, UK  
Tel: +44 (0)29 2087 5181  
pikej@cardiff.ac.uk



## **Dr Jeremy R. Young**

(Treasurer)  
Dept. of Earth Sciences  
University College London  
Tel: +44 (0)7813 114208  
jeremy.young@ucl.ac.uk



## **Dr George Swann**

(Membership Secretary)  
School of Geography  
University of Nottingham  
University Park  
Nottingham NG7 2RD, UK  
Tel: +44 (0)115 95 15428  
george.swann@nottingham.ac.uk



## **Prof. Alan R. Lord**

(Journal Editor)  
Mikropaläontologie I  
Forschungsinstitut Senckenberg  
Senckenberganlage 25  
60325 Frankfurt-am-Main  
Germany  
Tel: +49 (0)69 97075-139  
Alan.Lord@senckenberg.de



## **Dr F. John Gregory**

(Special Publications Editor)  
PetroStrat Ltd (& The Natural  
History Museum, London)  
33 Royston Road, St Albans  
Hertfordshire AL1 5NF, UK  
Tel: +44 (0)1727 843056  
john.gregory@petrostrat.com



## **Dr Mark Williams**

(Special Publications Editor)  
Department of Geology  
University of Leicester  
Leicester LE1 7RH, UK  
Tel: +44 (0)116 2523642  
mri@le.ac.uk



## **Dr Magali Schweizer**

(Newsletter Editor)  
Grant Institute of Earth Sciences  
University of Edinburgh  
Kings Buildings  
West Mains Road  
Edinburgh EH9 3JW, UK  
Tel: +44 (0)131 650 4777  
magali.schweizer@ed.ac.uk



## **Dr Robert Raine**

(Publicity Officer)  
Ichron Limited, Century House  
Gadbrook Business Centre  
Rudheath  
Cheshire CW9 7TL, UK  
Tel: +44 (0)1606 46113  
robert.raine@ichron.com



## **Dr Tom Russon**

(Webmaster)  
Grant Institute of Earth Sciences  
University of Edinburgh  
Kings Buildings  
West Main Road  
Edinburgh EH9 3JW, UK  
Tel: +44 (0)7854 698157  
t.f.russon@sms.ed.ac.uk



## **Dr Haydon W. Bailey**

(Industrial Liaison Officer)  
Network Stratigraphic  
Consulting Ltd  
Harvest House, Cranbourne Rd  
Potters Bar, Herts, EN6 3JF, UK  
Tel: +44(0)1707 661868  
hwb20@aol.com



## **Richard Hodgkinson**

(Archivist)  
Department of Palaeontology  
Natural History Museum  
Cromwell Road  
London SW7 5BD, UK





**Foraminifera Group****Dr Kate Darling**

(Chair)

Grant Institute of Earth Science  
University of Edinburgh  
Kings Buildings  
West Mains Road  
Edinburgh EH9 3JW, UK  
Tel: +44 (0)131 650 4913  
Kate.Darling@ed.ac.uk

**Dr Phil Sexton**

(Secretary)

Department of Earth &  
Environmental Sciences  
Open University  
Milton Keynes MK7 6AA, UK  
Tel: +44 (0)1908 653647  
p.f.sexton@open.ac.uk

**Microvertebrate Group****Prof. M. Paul Smith** (Chair)

School of Geography, Earth  
and Environmental Sciences  
University of Birmingham  
Edgbaston  
Birmingham B15 2TT, UK  
Tel: +44 (0)121 414 4173  
m.p.smith@bham.ac.uk

**Dr Carine Randon**

(Secretary)

Université Pierre et Marie Curie  
Paris 6, UMR 5143,  
cc. 104 T46-56 E5  
4 Place Jussieu  
75005 Paris, France  
carine.randon@upmc.fr

**Nannofossil Group****Dr Karl-Heinz Baumann**

(Chair)

FB Geowissenschaften  
Universität Bremen  
Postfach 330440  
28334 Bremen, Germany  
baumann@uni-bremen.de

**Dr Tom Dunkley Jones**

(Secretary)

Department of Earth Science  
and Engineering  
Imperial College London  
South Kensington Campus,  
London SW7 2AZ, UK  
t.dunkley-jones@imperial.ac.uk

**Ostracod Group****Dr Ian Boomer**

(Chair)

School of Geography, Earth  
and Environmental Sciences  
University of Birmingham  
Edgbaston  
Birmingham B15 2TT, UK  
Tel: +44 (0)121 414 5536  
i.boomer@bham.ac.uk

**Dr John Whittaker**

(Secretary)

Department of Palaeontology  
The Natural History Museum  
Cromwell Road  
London SW7 5BD, UK  
Tel: +44 (0)207 942 5132  
j.whittaker@nhm.ac.uk

**Palynology Group****Dr Fabienne Marret-Davies**

(Chair)

Department of Geography  
University of Liverpool  
Roxby Building  
Liverpool L69 7ZT, UK  
Tel: +44(0)151 794 2848  
f.marret@liverpool.ac.uk

**Phil Jardine**

(Secretary)

School of Geography, Earth  
and Environmental Sciences  
University of Birmingham  
Edgbaston  
Birmingham B15 2TT, UK  
Tel: +44 (0)121 414 6146  
PEJ083@bham.ac.uk

**Silicofossil Group****Dr Taniel Danelian**

(Chair)

UMR 8157 CNRS Géosystèmes  
Université Lille 1  
UFR Sciences de la Terre -  
Bâtiment SN5  
59655 Villeneuve d'Ascq Cedex  
France  
Taniel.Danelian@univ-lille1.fr

**Dr Claire S. Allen**

(Secretary)

British Antarctic Survey  
High Cross  
Madingley Road  
Cambridge CB3 0ET, UK  
Tel: +44 (0)1223 221422  
csall@bas.ac.uk



# The Grzybowski Foundation

## [Fundacja im. J. Grzybowskiego]

GF

### Report from the GF Chairman

DR MIKE KAMINSKI

With the publication of this summer's newsletter the Grzybowski Foundation is pleased to continue our collaboration with The Micropalaeontological Society to bring news items to the attention of micropalaeontologists in Eastern Europe and elsewhere. We also wish to thank our dues-paying members worldwide for their continued support, and at the same time this is also a reminder to send in your dues payment for 2011 if you have not already done so. For the first time, the membership invoices for the current year are being sent out together with a copy of the *'Proceedings of the Eighth International Workshop on Agglutinated Foraminifera'*, which was received from the printer in June. The GF relies upon the generosity of its members to fund ongoing activities such as the special publication series, meetings, and student grants. In addition you have the satisfaction of knowing that you are supporting a dynamic group of people who are active in research and training in micropalaeontology in Central Europe.

The first half of this year has been a busy one for the GF - and especially for me, owing to the fact that we edited and printed two Grzybowski Foundation Special Publications this spring, amounting to over 500 printed pages. In June we hosted the MIKRO-2011/TMS Foraminifera and Nannofossil Groups Joint Meeting at the AGH University of Science and Technology in Kraków. The day after the TMS meeting, we convened our yearly meeting of the 'International Working Group on Foraminiferal Classification'. In July, we put on the Fourth International Short Course on Foraminifera (ISF) in Urbino, Italy, which attracted 39 participants from as far away as Korea and Brazil. We also awarded the first 'Brian J. O'Neill Memorial Ph.D. Studentship', which went to a deserving Ph.D. student, Raluca Bindiu, who is working on the Paleogene foraminiferal assem-

blages from the Tarcau Nappe in the Eastern Carpathians at the Babes-Bolyai University in Cluj-Napoca, Romania. At the MIKRO/TMS meeting, we had the honour of presenting the annual 'Grzybowski Award' to Prof. Malcolm Hart of Plymouth University. Additionally we initiated an award for the best student poster presented at the MIKRO meeting, which went to Brett Metcalf. Looking toward the immediate future, we are hosting the 'Grzybowski Foundation Session' at the Eighth Romanian Paleontological Symposium which will be held at the University of Bucharest, September 29-30. The language of the session is English, and we expect to have good international participation.

At the Grzybowski Library in Kraków, our Librarian Wiesława (Violka) Król has returned from a work placement at Statoil and a semester at the University of Bergen, and she will look after the Library after the departure of Agnieszka Ciurej, who has taken on a research position at the Pol-



Fig. 1. Participants at the TMS Foraminifera and Nannofossil Groups Joint Meeting in Kraków. The photo was taken at the end of the last day of the meeting, and many participants had already left for the airport when the photo was taken.



*Fig. 2. Prof. Malcolm Hart receiving the 2011 Grzybowski Award of the Grzybowski Foundation. The award honours researchers who have continued the applied micropalaeontological studies of Jozef Grzybowski.*

ish Academy of Sciences. Congratulations are in order for Agnieszka, and we want to express our sincere thanks for many years of dedicated service to the Foundation's library. Any library enquiries should now be directed to Violka Król.

The dates of the Ninth International Workshop on Agglutinated Foraminifera (IWAF) have now been decided. The meeting will be held at the University of Zaragoza in Spain the first week of September 2012. The post-conference field excursion will be to the north coast of Spain to see the famous Zumaya and Sopelana sections, which are candidates for various GSSPs. The organizing committee will be headed by Laia Alegret, and people can contact Laia for additional information. Of course, the abstract volume and field excursion guide to next year's IWAF-9 meeting will be published as a Grzybowski Foundation Special Publication and all GF members will receive it. The First Circular to the IWAF-9 meeting will be sent shortly.

Many people made generous contributions of time and effort this spring to help with the Foundation's activities. I especially wish to thank

Sorin Filipescu for seeing the IWAF-8 Proceedings volume to its successful conclusion, Anna Waskowska and Marta Bak for organizing the MIKRO/TMS meeting and field excursion and publishing the conference volume, Fabrizio Frontalini for his expert organization of the 4<sup>th</sup> ISF in Urbino, Laia Alegret for organizing the venue for the IWAF-9 meeting, and many others who helped the foundation in many ways. We also wish to thank our sponsors, especially Celka Microslides, who always help out whenever we put on a conference or short course. The photos (Figs 1-3) from the various GF events speak much more strongly than words. I believe we have an unsurpassed team of dedicated members who are eager to see the Foundation succeed in its various activities. For me it is a great privilege to be associated with such dedicated and kind-hearted individuals who have invested such an enormous effort for the benefit of our science and society.

Wishing all our members a pleasant summer holiday!

Mike Kaminski, Chairman <kaminski@kfupm.edu.sa>



*Fig. 3. Participants and staff of the 4th International School of Foraminifera, held at the Campus Scientifico of University "Carlo Bo", Urbino Italy, July, 2011. The city of Urbino is in the background.*

# ***The Czech Geological Survey micropalaeontological collection - junk or treasure?***

**MIROSLAV BUBÍK**

During the three decades after WWII, the boom of the geological survey and drilling activities produced a huge amount of micropalaeontological material in Czechoslovakia like in many other countries. When I joined the Survey in the late 80s this boom was already over. A vast volume of microfossil slides, washed residues, and documentary rock pieces was stored in that times in various offices and depositories in Brno, Prague, and other places. When I received an offer to take over the material of Dr Eva Hanzlíková who retired in 1984, I did not hesitate for a second. I remember a slightly dramatic transport of Hanzlíková's material by an open Škoda truck as I prayed for no rain. Later I inherited even more material from the CGS depository in Lužná (Hanzlíková's material from Slovakia and the Upper Silesian NP boreholes), slides of M. Vašíček, material of J. Krhovský, slides and residues of I. Cicha, J. Čtyrtek and I. Zapletalová, etc. Not everything was saved. A complete cabinet filled with residues from the Miocene basins disappeared in Brno. Unknown individuals equipped with a truck crane and a flatbed truck one day simply stole the movable prefab cabin including its content (perhaps not for the stored material but just for the prefab cabin). In the early 90s some companies working in applied geology simply discarded their micropalaeontological material without any record...

Today the micropalaeontological material at the Czech Geological Survey in Brno represents the largest collection of microfossil slides in the Czech Republic. Slides are stored in 318 uniform cardboard boxes with dimensions of 11x20x34 cm. Each box contains 200 to 300 slides depending on their format. The inventory of these slides is not yet done, but the estimated number is at least 75,000. If, for instance, one would inventory eight hours a day and spend ten minutes on each slide, the task would be finished in six years. It is anyway not realistic, as the most important information, like the geo-

graphic coordinates and map sheet number, are mostly missing. Some slide sets are labelled just by numbers and it is not clear what the numbers mean (point?, borehole?, sample?). Most samples can be identified, but a time-consuming study of archive reports and their documentation will be necessary to localize them. In the times of the geological research boom, a lot of slides were simply not labelled properly. The main goal was just to obtain a fast stratigraphic interpretation.

Samples that cannot be identified or localised can be discarded or used for educational purposes at schools. To sort the 'junk' from valuable material may be a job lasting decades, and it is nearly impossible to get funding for such a task. Economic arguments support the curation of the slides and their use in research. The value of the slide collection estimated from today's prices of consumables and work are at least 37.5 millions CZK (about 1.5 million Euro) not including the expenses for collecting the samples. Considering the extremely expensive deep drilling and localities that have disappeared, a large part of the material cannot be recollected. As the inventory of slides and other material is a huge task, we divide it into three steps: 1) move all material to standard cardboard boxes, 2) photograph all slides and provide a preview of material online, 3) inventory the slides, residues and documentary samples (in a database). At the moment step 1 is finished.

In addition to the assemblage slides, the foraminiferal type material and originals from the Carpathians of Moravia are stored in Brno. We have specimens from the Cretaceous of Carpathian Flysch described by E. Hanzlíková in her monographs (Lhoty Formation, Variegated Godula Formation, Carpathian Upper Cretaceous, Frýdek Formation). Also her Jurassic Foraminifera of the Klenčice Formation are here. Two years ago the collection of I. Cicha was moved here from Prague, including types



and originals described in the monographs of Cicha and Zapletalová on representatives of the genera *Cibicides*, *Bolivina*, textulariids and lutilids from the Carpathian Foredeep and Vienna Basin. Also specimens from the monograph on Miocene *Lenticulina* (Molčiková 1978) are in Brno. An inventory of the foraminifer collection and online accessible database were included in two projects already proposed, but not yet funded. We are trying again and will keep trying, as this micropalaeontological heritage must be saved for future research.

Figure 1. The micropalaeontological collections housed at the Czech Geological Survey in Brno, Czech Republic.



## The eForams website

JAROSLAW TYSZKA

In 2006 we created the eForams website to offer easy access to basic knowledge on foraminifera (Hottinger et al. 2006). eForams runs on MediaWiki, an open source, server-side software invented for internet encyclopaedias. The idea of sharing and spreading knowledge on foraminifera is still attractive for the foraminiferal community, but such efforts are not appreciated by supporting agencies. Nevertheless, we have observed some positive trends based on the statistics of page entries. The whole website experienced over 1.5 million of page views in 4 years. The most popular page is 'FORAM-Links': <http://www.eforams.icsr.agh.edu.pl/index.php/FORAM-Links>.

This page provides Web links to other websites, societies, upcoming meetings, glossaries, and virtual galleries. The page has been accessed nearly 120,000 times, indicating that we really look for up-to-date information on foraminifera. It is a clear hint for the future development of eForams to work as a map linking information from various sources.

### EForams 2.0

We would like to upgrade this website and propose a more innovative community service focused on sharing knowledge and new infor-

mation on the Foraminifera. We want to learn and discuss your current demands and future prospects for this portal to make eForams more useful for the community.

The website is moved to a new domain, [eforams.org](http://eforams.org), which is independent and non-profit-making. We would also like to establish a scientific editorial board responsible to maintain the credibility of the service. The site is so far accredited by the Grzybowski Foundation, which will likely move its website to eForams, thereby combining efforts rather than duplicating them. We also propose a new structure of the website that includes: eForams-Wiki, new FORAM-Publications, FORAM-Links, FORAM-Meetings, and eForams LABS designed to focus on specific methods. This new structure may assist our scientific activities, such as enquiries on new publications spread in different global and local journals. We want to encourage all foraminiferologists to share their knowledge and information. We would like to invite senior editors responsible for selected aspects of foraminiferal research. We would also like to emphasize that we still want to keep the site non-anonymous, i.e., built by a community of registered scientists. In order to enhance the quality and encourage scientists to post their

review articles, we may also plan to extend our service to a new peer-reviewed Open Access electronic journal associated with the eForams

site. We are open to new ideas and new contributions.

## ***The 4<sup>th</sup> International School on Foraminifera, Urbino, Italy, 12<sup>th</sup>-22<sup>nd</sup> July, 2011***

**BENEDETTO SCHIRALDI, RUTGERS UNIVERSITY, USA**

**ANDREEA TELESAN, BABES-BOLYAI UNIVERSITY, ROMANIA**

The Fourth International School on Foraminifera took place in July at the University of Urbino, in Italy. The course has international popularity, which is evident through the enrollment of students and professionals from all over Europe, the USA, China, the Middle East, South America, as well as Africa. The success of the course is largely a result of the organization and diligence of Fabrizio Frontalini of the University of Urbino, and Mike Kaminski of King Fahd University of Petroleum & Minerals, working under the auspices of, and with sponsorship from the Grzybowski Foundation. The success of the course can also be attributed to several other organizers, guest lecturers, and noteworthy members of the micropaleontological community.

The University of Urbino was built atop a hill in the Marche region of Italy. Its location provides unmatched panoramic views of the region with easy access to the city center of Urbino where one can find fantastic food, marvelous displays of architecture, and art; especially evident in the Duke's palace within the city center. Low cost accommodation for students was made available at the University's College de Colle with most rooms providing displays of the unmatched aesthetics of the Italian foothill landscape. A cafeteria-style dinner is available at the University for students, or in just a ten minute walk students can experience the wonders of Italian cooking within the city center. The localized on-campus accommodation fosters lifelong friendships, professional networking, and the exchange of ideas that will benefit the eclectic group of fields in which foraminifera are used.

The International School is divided into two parts, one for to the benthic community and

one for the planktonic community. Both courses can be taken, or just one depending on the interest of the student. The clever design of the course caters to both amateurs as well as veterans in the field. Participants include graduate students, post-doctoral researchers, university lecturers, and working professionals. Its design makes it useful to people with interests in micropaleontology, climate science, geochemistry, geology, environmental sciences, and many more fields, whether their interests are in modern assemblages or the deep past.

Each day of the benthic course was subdivided into two parts, the first portion reserved for lecture and the second reserved for practical applications. Lectures were aimed to illustrate taxonomic, morphological, and stratigraphic uses for foraminifera, the ecology of the foraminifera, and practical modern applications of benthics in anthropogenically impacted environments. Microscope sessions consisted of independent study with guidance from experts Drs Mike Kaminski and Fabrizio Frontalini. This section allowed each student to fine tune the necessary skills to do their own personal work, which ranged from thesis research to applied petrogeology. Additional lectures were given by Dr Claudia Cetean (Institute of Geological Sciences, Polish Academy of Sciences, Kraków) and Prof. Laia Alegret (University of Zaragoza).

The planktonic course had a very similar structure. Planktonic lectures included taxonomy, morphology, biochronological uses, applications for recent paleoclimate and water mass reconstruction, as well as lessons in reproductive, seasonal, and diurnal cycle ecology. Prestigious guest lecturers in this section included, Profs Malcolm Hart (Plymouth University) and

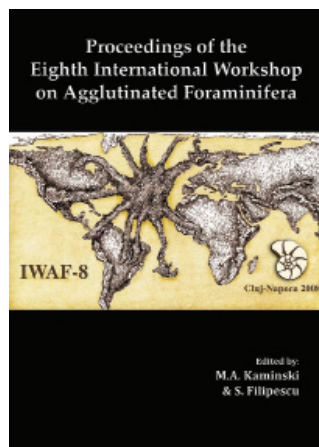


Isabella Premoli Silva (University of Milan). The use of microscope projections as well as the added expertise of Profs Hart and Premoli Silva made the practical sections of each lecture interactive and informative.

The tuition of each course included a day of field excursions and a social dinner. The benthic course field trip included the Contessa Highway and Bottaccione outcrops, with personal time in the beautiful city of Gubbio. The planktonic field trip included field excursions to the Massignano GSSP for the Eocene-Oligocene boundary, the K-T boundary at Monte Concerro, as

well as a several hour allotment to cool off in the Adriatic Sea. Both excursions were finished off with a fantastic Italian meal several kilometers from Urbino, some karaoke serenading by Drs Kaminski and Coccioni, SISUAN, Urbino University, and finally a taste of authentic Italian pastries and limoncello.

At the end of the course, despite great reluctance, students left having strengthened their expertise of foraminifera, grown their professional network, and of course with lifelong friends.



***Proceedings of the Eighth International Workshop on Agglutinated Foraminifera*  
 Edited by M. A. Kaminski & S. Filipescu (2011)  
 Grzybowski Foundation Special Publication nr. 16**

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Copies of the IWAF-8 book can be purchased directly from the Grzybowski Foundation (Price: £59.00). Please contact the Chairman to order your copy <kaminski@kfupm.edu.sa>.

# Obituaries

## Otto H. WALLISER

03 MARCH 1928 – 30 DECEMBER 2010



Otto Heinrich Walliser unexpectedly passed away in Goettingen on December, 30th 2010. This was only two weeks after he had accepted the plan of the German SDS (Subcommission on Devonian Stratigraphy) to include in their programme for May 2011 time for the Pander Society to present him with the Pander Society Medal for his lifetime outstanding conodont research.

Otto was born in Krettenbach near Crailsheim in south Germany on March 3rd 1928. He studied Geology and Palaeontology at Tübingen University under the internationally well-known Prof. O. H. Schindewolf. In July 1954 he graduated in Tübingen University after he had accepted an assistantship at the University of Marburg under Prof. C. W. Kockel in April 1954. In this small institute he met Günter Bis-

choff and Willi Ziegler who were studying Devonian and Lower Carboniferous conodonts of the Rhenish Schiefergebirge. The interest of Otto therefore changed from Jurassic ammonoids to Devonian goniatites in order to better understand Devonian stratigraphy. Besides this, he began the study of Silurian conodonts, their systematics, correlation uses and detailed biostratigraphy. In his remarkable publication of 1964 he reconstructed for the first time the conodont apparatuses theoretically by means of statistical methods.

In 1965 he became Professor of Historical Geology and Palaeontology at Göttingen University and up to his retirement in 1993 he stimulated more than 50 diploma theses and initiated 25 doctoral theses.

Otto was one of the first members of the International Subcommission on Silurian Stratigraphy and of the International as well as the German Subcommission on Devonian Stratigraphy. For many years he submitted handouts and documents to stimulate discussions on stratigraphic boundaries and international correlations of Silurian and Devonian sequences.

Otto was very interested in biostratigraphy and bio-events and therefore he initiated and coordinated the ICGP 216 project '*Global Biological Events in Earth History*' which was a very successful international programme. The results were published in two volumes (edited by Kaufman & Walliser, 1990 and Walliser, 1996).

The list of more than 120 publications demonstrates the different interests of Otto. It comprises papers on a variety of themes besides palaeontology, evolution and stratigraphy, and includes ecology, facies, sedimentology, palaeogeography, climate and global events not only in the past but as well in the present time and the future.

Otto was a highly admired and honoured scientist. Since 1982 he was a member of the 'Akademie der Wissenschaften zu Göttingen', in 1989 he became a foreign member of the 'Russian Academy of Sciences', and a foreign member of the 'Polish Academy of Sciences' 1993 in Kraków and 1994 in Warsaw.

A tribute to the broad interests and extensive knowledge of Otto can be seen in the list of taxa named after him, e.g. the conodonts *Lonchodina walliseri* Ziegler, 1960, *Ancyrognathus walliseri* Wittekindt, 1965, *Walliserodus Serpagli*, 1967, *Kockella walliseri* (Helfrich, 1975), *Icriodus arkonensis walliserianus* Weddige, 1988 and the scolecodont *Xanioprion walliseri* Kilan-Jawoewska, 1966, the Cambrian *Rhombocorniculum walliseri* Mambetov, 1977,

the Early Carboniferous *Pentaphylum walliseri* Weyer, 1993, the Early Devonian *Hysterolites ? walliseri* Jahnke & Slupic, 1993, the Middle Devonian *Lancicula walliseri* Langenstrassen, 1993, the Early Devonian ostracod *Nezamyslia walliseri* Groos-Uffenorde, 1993 and the Devonian trilobite genus *Walliserops* Morzadec, 2001.

Many colleagues will miss the fruitful discussions, the critical but balanced advice and unselfish help of a modest colleague and friend.

Otto is survived by his wife Edith, two sons and 5 grandchildren.

Helga Groos-Uffenorde  
Göttingen University

## Heinz Malz

20 AUGUST 1931 – 9 APRIL 2011



Dr Heinz Malz spent his working life in the Senckenberg Forschungsinstitut und Naturmuseum in Frankfurt-am-Main. Indeed, he was a genuine Frankfurter, having been born in Bockenheim, the

same district as the museum and attending school only a few hundred metres from the museum building. As a schoolboy he was a frequent visitor to the Naturmuseum. He attended Frankfurt University (also in the same district of Frankfurt), graduating Diplom-Geologen in 1953, and then carried out doctoral research on Upper Jurassic ostracods from NW Germany, France and England, supervised by Professor Rudolf Richter - he was Richter's last student. On completion of the doctoral work in 1957, he joined the Senckenberg where he overlapped with the legendary ostracod worker Erich Triebel (1894-1971). Initially Malz had a contract to work on 'Mesozoic animals', which in reality meant Mesozoic ostracods with the intention that he would eventually succeed Triebel; in the meantime Triebel concentrated on younger os-

tracod material. In 1963 Malz was appointed Kustos (Curator) and in 1969 followed Triebel as Sektionsleiter (Section Leader) for Micropalaeontology after the latter's retirement. Heinz Malz is thought of primarily as an ostracod worker, developing the tradition of ostracod research in Frankfurt established by Triebel, but he published widely on other subjects, in part reflecting the collections for which he became responsible. Thus his publications cover trace fossils and vertebrate tracks, decapod crustaceans, otoliths, vertebrates, foraminifera (with Helmut Bartenstein) and popular works on the Jurassic fossils of Solnhofen and Holzmaden. In addition, he hosted the first European Ostracodologists' Meeting (EOM I, Frankfurt 1989), editing both a pre- and a post-conference volume (*Courier Forschungsinstitut Senckenberg* 113 (1989) and 123 (1990)), and for some years edited the journal *Senckenbergiana lethaea*. Malz was also a stalwart supporter and participant in the now defunct European Micropalaeontological Colloquia, a series of collecting excursions that provided an opportunity to enhance the Senckenberg collections. He retired in 1994 but continued to work with ostracods from his new home in Bramsche, near Osnabrück.

Every person is unique we are told, but Heinz Malz was a greater individualist than most of us. He had an opinion on many subjects, individual, well thought-out, not imposed on others, but usually unshakeable. He was particularly clear on the importance, on the primacy of collections, and on the key role of careful curation, as basic tools for research. In recent years he had become worried by the way in which modern museums appear to have downgraded the role of caring for, expanding and using collections – what are museums for, especially research museums, if not for exhibiting, explaining, studying, growing and publishing on their collections?

itself modelled on the *Leitfossilien der Mikro-paläontologie* (1962) for which Malz was a contributor. Other collaborations followed over the years. Most recently we had prepared obituaries for Helmut Bartenstein and Erich Brand (Malz & Lord 2011), a task that sadly was completed the day before the final illness. My last memory of a good and firm friend is a happy one – dinner with his family in late March in Bramsche, an evening of laughter, good company, good food and, of course, good red wine.

Alan Lord  
Frankfurt-am-Main

I first met Heinz Malz at the Hamburg Ostracod Conference (1974) and in 1976 spent a week with him that led to our first joint paper. That paper was in preparation for *A stratigraphical index of British Ostracoda* (1978), which was

Malz, H. & Lord, A. (2011) Obituary: Helmut Bartenstein (1914-2010), Erich Brand (1914-2011), *Palaeobiodiversity & Palaeoenvironments*, 91: 157-159.

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## Meeting Report

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### **Mikro-2011 and TMS Foraminifera and Nannofossil Groups Joint Meeting in Kraków**

**MICHAEL HESEMANN, FORAMINIFERA.EU PROJECT**

From my point of view the TMS Foraminifera and Nannofossil Groups Joint Meeting associated with Mikro-2011 has been a very rich and intense 4-day meeting of European foraminiferal and nannofossil researchers. The organizing committee did a great job in smoothly balancing a wide range of topics (new studies on recent and palaeo-material, techniques and tools, forums in the internet, ...) with a well prepared field trip and several social events. All of the more than 100 participants - though not always present - got the chance to talk to everybody and listen to the presentations in English. Enough time was given for breaks and evening events for personal talks. Prof. Malcolm Hart was honored with the Grzybowski award 2011 and one of his students for the best poster. For me as a first-time visitor and newbie it was the perfect setting to present the foraminifera.eu project and get in touch with potential scientific

contributors.

#### **Preparation, documentation and new scientific results**

The meeting was well prepared and documented by Drs Marta Bak, Anna Waskowska and Michael A. Kaminski with the hard covered Grzybowski Foundation Special Publication No. 17. This book comprises 61 pages on the geological and palaeontological setting of the Outer Carpathians plus the abstracts of the meeting. Special workshops were offered on statistical data analysis with PAST by Dr Øyvind Hammer, on the TimeScale Creator by Dr Eric Anthonissen and on foram extraction from lithified porous rock with liquid nitrogen by Dr Zbigniew Remin and his team. Dr Joachim Schönfeld reported from the FOBIMO- a workshop on bio-monitoring with forams – the effort to establish a standardized method to be approved by the EU



on environmental monitoring in marine environments. He invited the participants to join in. Probably the most challenging new result was presented by Dr Claudia G. Ceteau, showing images of cancellate planktonic foraminifera from the Lower Jurassic so far not observed in the Jurassic at all. Eiichi Setoyama did a great overnight job to back up his work on the Late Cretaceous of the Tethyan-Artic area with PAST two days after Øyvind's talk. The rising importance of DNA-barcoding of recent forams was reflected in different talks on the subject. I apologize for not mentioning the many other talks.

### The excellent Field Trip

Prepared by the textbook and the well done field guide we started our 12 hour field trip to five outcrops in the Silesian and Magura Nappe of the Outer Carpathians plus the traditional Polish highland diner. To observe the influ-

ence of heavy water run-off and weathering on rock formations we came on the very best day of the Carpathian monsoon season. Prof. Jan Golonka and Dr hab. inz. Marek Cieszkowski explained the geological setting in the bus and at the outcrops. Dr Anna Waskowska indicated in detail where to take the best samples for the few people sampling such as Dr Miroslav Bubik, Eiichi and me. At the first stop Drs Marta and Krzysztof Bak had placed markers on the according layers to nicely illustrate the thin laminated setting of Cenomanian units deposited below the CCD. Altogether I sampled 5-6 kg and hope e.g. to find the prominent Eocene marker *Haplophragmoides parvulus* Bläicher, 1961 from the last outcrop.

My impression is that, not only for me as a newbie, this joint meeting has been a very rich event.

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## News

Professor Malcolm Hart (University of Plymouth) has been awarded the Jean Baptiste Lamarck Medal for 2011.

The Jean Baptiste Lamarck Medal is awarded annually by the Division of Stratigraphy, Sedimentology and Palaeontology of the EGU (European Geosciences Union). The awardee rotates through the three subject areas in a cycle and in 2011 it was the 'turn' of palaeontology. The medal was presented to Professor Hart, on the 6<sup>th</sup> April at the EGU meeting in Vienna, by Professor Ian Jarvis and the presentation was followed by the recipients Medal lecture on '*The micropalaeontological response to Cretaceous oceanic anoxic events*'. Following the lecture, on the evening of the 6<sup>th</sup> April, all the medallists were presented with their certificates



by the President (Prof. Tuija Pulkkinen) and Vice-President (Prof. Donald Bruce Dingwell) of EGU, and then entertained at a Medallists Dinner in Vienna.

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Giles Miller recently started a blog on the Natural History Museum's site entitled '*The Curator of Micropalaeontology's Blog*' (<http://www.nhm.ac.uk/natureplus/blogs/micropalaeo>). It is designed for non-specialists so assumes no knowledge of micropalaeontology. However,

it does give up to date information on what is happening in micropalaeontological collections management at the NHM and aims to highlight the relevance of the collections and their potential uses.

## RPS Energy

The RPS Group is a planning and development, energy resources and environmental consultancy with over 3,200 staff worldwide. RPS Energy is a multi-disciplinary consultancy, providing Technical, Commercial and Project Management Support services in the fields of operations, geoscience, engineering and HSE to the energy sector worldwide.

RPS has in-house teams of biostratigraphers based in our Aberdeen and Woking offices, who work closely with sedimentologists and geoscientists within RPS and our wider client base. The teams have extensive experience of working in basins throughout the world.

We are looking to expand both teams and have a number of positions for Micropalaeontologists and Palynologists in both office locations.

### **Role Responsibilities vary according to experience, but typically include:**

- Primary role will be the accurate identification of microfossils from drilled rock and field samples
- Reporting of results to clients in standard written format
- Mentoring junior members of the team
- Project management
- Regular liaison with key clients
- Business development

### **Experience Required:**

- A BSc in Geology/Earth Sciences with a post-graduate degree in Micropalaeontology/Palynology
- Previous Oil and Gas/consultancy experience is beneficial
- Previous wellsite biostratigraphy experience would be advantageous

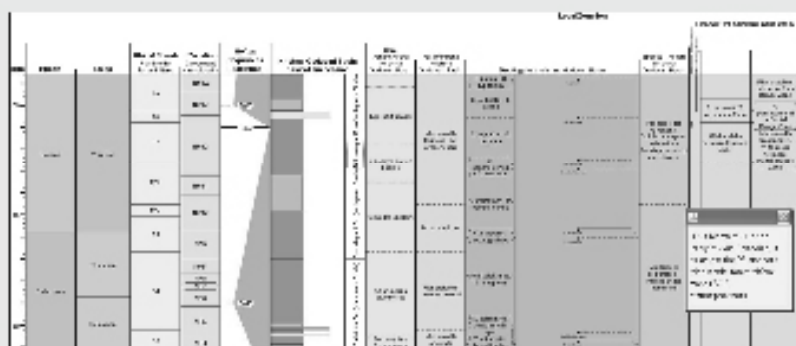
### **Remuneration Package**

This will be dependant primarily upon experience, but RPS Energy offer staff highly competitive packages including excellent base salary in addition to a wide range of benefits

**For more detailed information on the above roles and similar then please contact Nicola Searle on 01483 746500 or [searlen@rpsgroup.com](mailto:searlen@rpsgroup.com) alternatively see the full job description at [www.joinrps.com](http://www.joinrps.com)**



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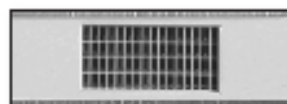
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BiotechMicroslides has been manufacturing slides for the storage of microfossils and small zoological and botanical specimens since 1974.

Slides, with either black or white cell backgrounds are available in cardboard with aluminium holder and glass coverslide. Also available to order are double-depth single-cell slides with paper tops and either acetate or glass coverslip.

Slide dimensions 3" x 1" (76mm x 27mm)

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- Picking trays 3 3/4" x 3 3/4" (97mm x 84mm)
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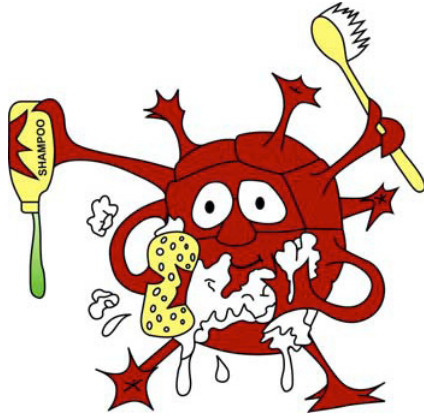
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