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The Micropalaeontological Society

The Grzybowski Foundation

International Research Group on Ostracoda

The International Nannoplankton Association

The Cushman Foundation

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Conference and Course Announcements

Modern Planktonic Foraminifera Taxonomy Workshop:

Towards a new taxonomy of modern planktonic foraminifera
integrating morphological and genetic evidence

Prague, June 24-27 2013
in association with TMS foraminifera and nannofossil groups spring meeting

Contact: Michal Kucera <mkucera@marum.de>

The SCOR working group 138 on “Modern Planktonic Foraminifera and Ocean Changes”, initiated in 2011, aims to produce a state-of-the-art overview of the research on modern planktonic foraminifera over the last decades. Among the priorities for action is the need to standardize the taxonomy, which serves as the basis for all research on the group. In particular, a review of the taxonomy in the light of genetic evidence is needed to facilitate understanding of processes occurring at the level of biological species and to constrain the validity of species-specific proxies used to reconstruct past ocean states. The WG realizes that such step will require the involvement of a broader community and decided to organize an open workshop on this topic. The workshop takes place in Prague in June 24-27, 2013, immediately after the TMS Foraminifera and Nannofossil Groups Joint Meeting. We invite colleagues working on all issues related to taxonomy of modern and Neogene planktonic foraminifera to attend. Since space is limited, we ask you to contact the organisers as soon as possible. Please provide a brief description of how you believe you can contribute to the workshop. Participants are asked to contribute 25 euro for coffee and sandwiches during the workshop. There are no further costs involved.

Info on SCOR/IGBP WG 138: http://www.eforams.org/index.php/WG138_Startpage

4th Polar Marine Diatom Taxonomy and Ecology Workshop

The 4th Polar Marine Diatom Taxonomy and Ecology Workshop will take place in Cardiff University, UK, from 4th-9th August, 2013.
The focus of this international workshop is training in marine diatom techniques, with particular emphasis on the high latitudes. It will encompass Neogene to Recent time periods, and focus on topics such as taxonomy, stratigraphy, ecology and proxy development for past ocean and climate reconstructions.
The nature of the practical microscopy training sessions mean that participation in the workshop will be limited so potential participants are encouraged to register early!
It is anticipated that registration will open in late February 2013, and will close end of April 2013. Please keep an eye on the “What’s Going On?” section of the webpage http://www.cardiff.ac.uk/earth/ for up-to-date announcements, or contact Jenny Pike (pikej@cardiff.ac.uk) to be added to the mailing list.
Current sponsors of the workshop are The Micropalaeontological Society and the Linnean Society of London, and additional travel grants to assist with early career researcher attendance have been applied for.
Microfossils III: Geologic Problem Solving with Microfossils, The University of Houston, Houston, TX, USA, March 10th - 13th, 2013.

The third in the NAMS-SEPM sponsored Geologic Problem Solving with Microfossils Conference series (a.k.a., Microfossils III) will be March 10 –13, 2013 at the University of Houston. Microfossils III is a unique meeting concept with a broad focus on the use of microfossils for solving geological problems. Session themes span chronostratigraphy, paleoclimate, paleoceanography, environmental quality assessment, evolution and new technologies, among others. Submissions are open to all microfossil disciplines – calcareous, agglutinated, siliceous, organic-walled, protozoan and metazoan alike. Attendees of past meetings have said that the “open” problem solving theme of the conference and the broad participation of specialists from varied disciplines creates a rich environment for collaboration, and the sharing of ideas and knowledge. The technical session themes that are intended to reflect today’s broadening application of micropaleontology with the hopes of attracting a diverse spectrum of oral and poster presentations.

Technical Sessions

- The Microfossil Record of Major Oceanic Events
- Microfossils and Unconventional Resources: The New Frontier
- High-resolution Biostratigraphy, Chronostratigraphy and Geochronology
- Reconstructing Past Environments Using Microfossils
- Environmental Monitoring and Ocean Chemistry Proxies
- Paralic and Lacustrine Micropaleontology
- Microfossils and Biofacies Analysis: Applications and Challenges
- Paleoclimate, Paleoceanography and Relative Sea-level Change
- Taxonomy, Phylogeny and Evolution
- New Technologies and Techniques in Microfossil Studies

The Venue: The University of Houston

The University of Houston hosted Microfossils II in 2009 and will be hosting Microfossils III. The conference hotel, the Hilton University of Houston Hotel, is located on the campus a short distance from the lecture hall. Transportation will also be provided between the hotel and lecture hall.

Houston is serviced by the 7th largest and fastest growing airport in North America, so travel will be convenient for international participants.

See Where to Stay: Hilton, University of Houston on page 6 for information on lodging while attending the Microfossils III Conference.

The University of Houston will host NAMS-SEPM Third Geologic Problem Solving with Microfossils Conference (Microfossils III), The University of Houston campus with downtown Houston in the background.

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Excerpt from NAMS NEWS  Fall 2012
Deep-Sea Sediments: From Stratigraphy to Age Models

9 - 20 September 2013
Bremen, Germany

Steve Bohaty (University of Southampton)
Sarah Davies (University of Leicester)
Oyvind Hammer (University of Oslo)
Dierk Hebbeln (MARUM, Bremen)
Michal Kucera (MARUM, Bremen)
David Lazarus (Museum für Naturkunde, Berlin)
Stephan Meyers (Wisconsin)
Helko Päälike (MARUM, Bremen)
Isabella Raffi (University of Chieti)
Ursula Röhl (MARUM, Bremen)
Peter Sadler (UC Riverside)
Jeremy Shakun (Harvard University)
Richard Telford (Univ. Bergen)
Silke Voigt (Goethe University, Frankfurt)
and others ...

Venue:
MARUM - Center for Marine Environmental Sciences
with the
IODP Bremen Core Repository
Bremen, Germany
The Micropalaeontological Society is pleased to announce that the 2013 Spring Meeting of its Foraminfera & Nannofossil Groups will be held in the Geology Institutes of Faculty of Science at Charles University in Prague, Czech Republic.

Scientific programme

The meeting will consist of two days of oral presentations and poster sessions. The theme of the meeting will be: The Micropalaeontological record of global change: from epicontinental seas to open ocean

The meeting is open to all foraminiferal and nannofossil researchers and students to present their results on any aspect of taxonomy, ecology, palaeoecology, biogeography, and global change research.

Following the tradition established at earlier meetings, the priority will be to facilitate the presentation of results by students and junior researchers. The technical sessions will be followed by a one-day field trip to a Upper Cretaceous rocky-shore and littoral facies yielding foraminifera and calcareous nannoplankton, near the historic town of Kutná Hora.

We offer lecture room facilities and technical support for the organization of “satellite” workshops prior to the meeting.

Social events

Wednesday 19 June (afternoon)  Short walk around the famous Prague architectural monuments: Medieval and modern time climatic events vs. Prague history

Wednesday 19 June (evening)  Ice-breaker party in Museum of the Earth History, Faculty of Sciences

Thursday 20 June (evening)  Meeting dinner in Czech pub

Registration and conference fees

Meeting fees (including abstract volume, lunch & coffee/tea on both days) are as follows

- Standard (TMS member) €55
- Standard (TMS non-member) €60
- Student (TMS member) €25
- Student (TMS non-member) €30

Transport and accommodation

Prague has very good plane, train and bus connections with many European cities. Prague offers a full range of accommodation possibilities. We can help with reservation of simple but cheap student accommodation in University hostels.

Important dates

- February, 2013  Second circular
- April, 2013  Deadline for registration, abstract submission, reservation of student accommodation
- May, 2013  Third circular with meeting programme
- June, 19-22, 2013  The TMS spring meeting in Prague

Organizing committee

Contact person:  Dr Katarína Holcová, Charles University in Prague, holcova@natur.cuni.cz
Dr Lilian Švábenická (calcareous nannoplankton), Czech Geological Survey Prague
Dr Miroslav Bubík (foraminifera), Czech Geological Survey Brno
Book Review

Essays in Honour of Frederico Waldemar Lange, Pioneer of Brazilian Micropaleontology

Stewart Molyneux, British Geological Survey

Frederico Waldemar Lange (1911–1988) was a distinguished Brazilian geologist and palaeontologist of German descent, who played a leading role in the development of micropalaeontology and palynology in Brazil in the latter part of the 20th Century. This book, emanating from a programme of knowledge dissemination sponsored by Petrobras, one aim of which is to record the evolution of scientific thought in the company, celebrates Lange’s life, work and achievements on the centenary of his birth.

The book comprises a Foreword, Introduction and Preface, followed by five chapters, all of which are printed in both English and Portuguese. The first two chapters deal with Lange himself. Chapter 1, by Drielli Peyerl and Elvio P. Bosetti, provides a biographical sketch of Lange’s professional life and career. Although as a young man he studied accounting and economic science, Lange’s real passions were geology and palaeontology. From 1941 until 1955, he held various positions in geology, mineralogy and palaeontology at the Paranaense Museum in Curitiba, eventually becoming the museum’s Director. His palaeontological research during this period concentrated on fossils from the State of Paraná, especially those of Devonian age, and on micropalaeontology and the history of palaeontological research in the state. Through the same period, Lange was involved in education, teaching geology and palaeontology, and was active in various learned societies, both national and international, including the Brazilian Geological Society, which he served as Vice-President, and the Ponta Grossa Amateur Astronomy Society. In 1955, Lange joined Petrobras, where he stayed until his retirement in 1972, working on the palaeontology and stratigraphy of onshore Palaeozoic and Mesozoic basins in Brazil and involved in mapping the Brazilian continental shelf, all of which was combined with management activities. He remained active in retirement and was still working as a consultant in early 1986, just over two years before his death in summer 1988. As a palaeontologist, Lange described new species of gastropods, bivalves, brachiopods, scolecodonts, chitinozoa and acritarchs. An indication of the breadth of Lange’s research interests is given by the list of publications with which Chapter 1 concludes. Chapter 2 provides more personal reminiscences of Lange, written by Luiz Padilha de Quadros, Lange’s nephew by marriage who worked with him at Petrobras.

The remaining three chapters all deal with microfossil groups on which Lange worked, respectively chitinozoa, scolecodonts and acritarchs. Chapter 3, by Yngve Grahn, comprises a re-examination of the Silurian and Devonian chitinozoa described and illustrated by Lange between 1949 and 1967. In two papers published in 1967, Lange established a preliminary Silurian–Devonian chitinozoan biostratigraphy of the Amazonas Basin, and described selected Devonian chitinozoa from the Paraná Basin while also drawing comparisons with the Amazonas and Parnaíba basins. In Chapter 3, Grahn sets out to re-evaluate Lange’s chitinozoan species in the light of modern chitinozoan taxonomy and modern interpretations of Silurian–Devonian stratigraphy in the Amazonas, Paraná and Parnaíba basins.
Chapter 4, by Mats Eriksson, Yngve Grahn, Elvio Bosetti and Cristina Vega, deals with Malvinokaffric polychaetes from the late Early Devonian, Emsian, Ponta Grossa Formation in the Paraná Basin, and includes a discussion and re-evaluation of the species described by Lange. Lange was a pioneering and innovative researcher into scolecodonts, the fossilised jaws of polychaete worms, and, as Mats Eriksson and his co-authors point out, was one of the first to apply an apparatus-based taxonomy as opposed to a single-element based form-taxonomy to the group. In this chapter, the authors validate the meticulous work of Lange through new collections from the same stratigraphical level and lithologies in the Ponta Grossa Formation as Lange’s specimens (the original locality is no longer available), although concluding that one of Lange’s species, Paulinites caniunensis Lange 1950 is most probably a junior synonym of Paulinites paranaensis Lange 1947. They also record scolecodonts from other levels in the same formation, and provide a review of the global record of Devonian scolecodont-bearing polychaetes in general and the scolecodont heritage of Lange in particular, all in the context of the geological setting and stratigraphy of the Paraná Basin.

Chapter 5, by Alain Le Hérissé, like Chapter 3, provides a taxonomic revision of Lange’s published material, in this case a reappraisal of the organic-walled microphytoplankton, namely the acritarchs and related forms that Lange described. Lange’s two 1967 palynological publications focussed particularly on the netromorph acritarchs, and these, comprising species of Bimerga, Dactylofusa, Eupoikilofusa, Leiofusa and Navifusa are also the focus of this chapter, along with species of Maranhites and Pseudolunulidia. The reappraisal takes account of morphological variability among acritarchs in response to ecological factors, and recognises 19 species among Lange’s material, recording their occurrence in Brazilian sections and comparing them with related forms.

This book, particularly the reviews and original work reported in Chapters 3–5, reinforce the validity of Lange’s work and observations, updating them in terms of modern taxonomy and placing them in the context of modern interpretations of stratigraphy. Not only is this book a fitting tribute to Lange’s work and legacy, it also opens a door into more recent work on the micropalaeontology and stratigraphy, particularly in the Silurian and Devonian, of the Palaeozoic basins of Brazil.

Essays in Honour of Frederico Waldemar Lange, Pioneer of Brazilian Micropaleontology (Elvio P. Bosetti, Yngve Grahn and José Henrique G. Melo, eds) can be ordered from Editora Interciência, Rio de Janeiro, Brazil (email: vendas@editorainterciencia.com.br), price R$92.00 + postage and packing (inside Brazil), US$52.00 + postage and packing (outside Brazil).

Obituary

Brian H. Conway
6 March 1950-15 November 2012

From abstracts, reports and publications one recognizes three periods in the life of Brian as a scholar. The first decade, from 1978 until his PhD thesis in London (1988), Brian tackled the palyno-stratigraphy of the Jurassic system in Israel and its thermal maturity, both subjects that remained his strength during his entire career. In a second decade, he widened his horizon to englobe the younger Mesozoic and Cenozoic. In the third decade, the experienced researcher contributed enormously to oil exploration, in particular in the field of oil windows in the newly explored Mediterranean offshore boreholes.

As a researcher

In the GSI he was a meticulous and industrious scientist preparing all pollen samples using special extraction techniques that he developed himself. Working with him was tough but rewarding, as we remember, like preparing the Jurassic review paper for the Peri-Tethys project (1998), writing drilling reports together or stud-
y ing some coalified wood in the petrified forest of the Ramon “crater” in the Negev. He was the ultimate authority in Jurassic bio-stratigraphy and when other tools would provide no reliable clues, he stood his point, even when other researchers did not accept his conclusions. But, after the years his determinations were found to be rock solid. Brian published 55 papers, technical reports and abstracts.

**As a person**

Brian was born as the elder son of Sidney and Pat Conway (formerly Cohen). His loving and spirited family was living in Stratford, site of the recent Olympics rather than Shakespeare’s, a fairly tough part of east London. He attended Stratford Grammar School where he did well academically. Stratford Grammar was unusual for its time, and for the area, in that it had several talented teachers who were trained to teach the earth sciences. This encouraged Brian’s early interest in geology although he did not initially indicate that he would go to university later, like his boyhood friend Paul Smith. But Brian’s excellent A-level grades gained him access to Queen Mary College, University of London. Paul was astounded and delighted to find him at the first day of classes. They experienced much field work and mapping together as part of their honors program in the Mendip Hills (Somerset). In his early years Brian loved to travel and in the summer of 1970, he and Paul hitch-hiked together through France, Switzerland and Italy making it as far as Rome. In 1972, as a young tourist, Brian (Baruch) arrived in Israel. Looking for a job at the GSI, he was hired immediately. As his closest friends, we remember how during the ‘Yom Kippur’ war, Brian volunteered for a few weeks to help sustain border settlements, and was assigned to the Golan Heights. From 1974-1975 he went back to England to gain his Master’s degree and from 1976 to 1978 he worked as a palynologist in South Africa. When he returned to Israel in September 1978, he joined the Paleontology division. While taking care of immigration procedures at the Ministry of the Interior, he fell in love with the officer who took care of him, Miriam, who soon became his beloved wife. Their three children, Inon, Ido, Rakefet are now successful and well educated adults. Brian was a vivid, curious and inventive scholar. He contributed much to the oil exploration in Israel, the country to which he felt most attached. He was also generous with assistance to his friends and colleagues. He worked very hard to build his home in Israel all by himself. In order to earn more money for his family he worked at night in a hotel as a sommelier. In spite of his face injury after a bicycle accident his spirit remained high and there was always a smile on his face. In his humble and quiet way he was full of dignity. This explains part of his personality, far from being a “snob” at all. His life has not been paved with many lucky events. At an early age, his beloved wife Miriam fell ill with a serious disease of the nervous system. While she was bedridden, Brian took care of her with love and care in an exemplary way until she died, 7 years ago. Soon after her death, Brian brought to Shimon’s office the large Philodendron that stood in Miriam’s room at home. Seven years later, during Shiva, Shimon told Brian’s children about the plant and, grateful, they promised to welcome the plant back into the family. His three children were the light of his life, and, as a loving father, he maintained his family as a solid unit until the end. When he retired less than two years ago, Brian purchased an apartment in Netanya, closer to his children and grandchildren. Brian died of a heart attack on the 15th of November 2012. Brian was a good friend, gentle and caring, with lots of interesting conversations. He trod his own path and not everybody understood him. He never pursued honors, fame, or privileges. He will be remembered as a loving husband and father, a dear friend and reliable colleague, a careful and skillful researcher. We cherish and appreciate Brian as a scientist and as a “Mentsh”. Be blessed His Memory.

Francis Hirsch, Shimon Ilani, Lydia Perelis-Grossowicz, Amnon Rosenfeld, Rimona Siman Tov, Paul Smith and Michael Dvorachek
Meeting Reports

The XIII International Palynological Congress, Tokyo, Japan, 23rd -30th August 2013

FABIENNE MARRET, UNIVERSITY OF LIVERPOOL

This year, our international palynological congress took place in the buzzing town of Tokyo, at the University of Chuo, during the late summer, and as a joint meeting with the International Organisation of Palaeobotany Conference (http://www.psj3.org/ipc-iopc2012/Welcome.html). The theme of the congress was centred on Palynology and Palaeobotany in the Century of the Environment, organised with thematic and general sessions. A total of 514 participants from 50 countries gave 576 presentations (with 411 talks). Seven thematic sessions were organised, covering a wide range of topics: Airborne pollen and spores as allergic agents, Innovative tools for palynological and palaeobotanical studies, History of human-plants relationship, Quaternary ecosystems and climates, Cenozoic plants and biosphere surrounding them, Phytogeography and systematics of Palaeozoic and Mesozoic plants, Evolution and development in palaeobotanical contexts. Each of the session had a number of symposia, from 4 to 6, so that each day was scheduled with about 4 to 6 parallel symposia. In addition to the specific sessions, 11 general sessions were organised, also in parallel, covering other aspects such as forensic palynology, taphonomy, pollen morphology, mellisopalynology and pollination ecology. In addition, poster sessions were run during lunch time. Therefore, one had little time to linger and there was not a lack of choice for talks or posters of great quality. I was also truly impressed by the excellent organisation of the Congress and the pleasant location of the Conference, in the centre of Tokyo, very close to the famous Dome. The International Federation of Palynological Societies held its first meeting of its incoming meeting, where Prof. Charles Wellman (from University of Sheffield) replaced Dr Thomas Servais (Université de Lilles) as the new IFPS president. We also voted on the venue for the next IPC, and Salvador de Bahia (Brazil) will host the next joint IPC/IOPC in 2016, in the late summer. It will be the first time that this conference will take place in South America and we encourage your participation (http://www.palynology.org/upcoming-aasp-meetings/16).
Welcome to the first Newsletter of 2013, and a happy and prosperous new year to all. As we all look forward to our micropalaeontological-related projects and activities in 2013, I would like to take this opportunity to update you with the state of the Society, and with a look back over the activities of 2012. Membership numbers are on the increase, and hover over the 500 mark for the first time. The Committee has seen large changes since November, and I would like to extend my gratitude for the hard work carried out by the outgoing John Gregory (Special Publications Editor), Tom Russon (Webmaster), Kate Darling (Foram Chair), Phil Sexton (Foram Secretary), Karl-Heinz Baumann (Nannofossil Chair) and Phil Jardine (Palynology Secretary). I warmly welcome new members Tom Hill (Publicity Officer), Janine Pendleton (Webmaster), Bill Austin (Foram Chair), Kirsty Edgar (Foram Secretary), Matt Hampton (Nannofossil Chair), and Simon Cole (Nannofossil Secretary), and wish them all the best in their new roles.

Last year was also a very successful one for TMS with respect to meetings and activities. As most of you are probably now aware (due to my extensive emailing), the Annual General Meeting was for the first time since 1972 moved out of London, and expanded to take place over three days. With over 90 participants from across the UK, EU and also the US, 42 abstracts given as talks and posters, and a field trip to Charnwood Forest, the meeting was a great success. A full meeting report is provided on page 13. The Foraminifera and Nannofossil Groups organised their traditional joint Spring meeting, which this time took place at the University of Edinburgh entitled “Interdisciplinary advances in foraminiferal and nannofossil research”. A satellite workshop on “North-East Atlantic benthic foraminifers: a new taxonomy for the 21st century” was also included. The Lyell Meeting was organised by TMS in March, entitled “Big Palaeontology”; a very successful “TMS Dorset Field Trip” was organised in April; TMS co-sponsored the March International Meeting of Radiolarian Palaeontologists, which took place in Cadiz; and the Palynology Group organised a meeting entitled “Future Research in Palynology” at the University of Southampton in June.

The 2012 Brady Medal was awarded to Richard J. Aldridge at the AGM for his excellent contribution to micro- and macropalaeontology; taxonomy, evolutionary biology, palaeoecology and palaeoclimatology in particular. The Brady medal is the Society’s highest award for scientists who have had a major influence on micropalaeontology by means of a substantial body of excellent research. The Medal 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. Nominations for the Brady Medal are accepted by the President or Secretary at any time (please see the TMS website for further information).

The Alan Higgins Award 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 and/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. We were delighted to make the 2012 award to Tom Dunkley Jones. Nominations for the 2013 award should be sent to the Secretary by 28th February 2013.

**Charles Downie Award**
The Charles Downie Award is given annually to the member of TMS 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 has awarded the 2012 Charles Downie Award (best paper published in 2011) to Tracy Aze for her paper: T. Aze, T. H. G. Ezard, A. Purvis, H. K. Coxall, D. R. M. Stewart, B. S. Wade and P. N. Pearson. 2012. A phylogeny of Cenozoic macroperforate planktonic foraminifera from fossil data. Biological Reviews 86, p. 900–927. The Committee were particularly impressed with the standard of nominees, which made the decision a hard one. Nominations for 2013 (best paper published in 2012) should be sent to the Secretary by 28th February 2013.

**Grants-in-Aid**
In 2012, TMS awarded four Grants-in-Aid: Sébastien Maillet (ICL, Lille) to sample Givetian outcrops for ostracods in northern Spain (Asturias), Manuel Weinkauf (University of Tübingen) to attend the Foraminifera and Nannofossil Groups Joint Spring Meeting 2012, Lyndsey Fox (University of Leeds) to attend the Foraminifera and Nannofossil Groups Joint Spring Meeting 2012, and Michaela Radl (QMUL College) to attend the Foraminifera and Nannofossil Groups Joint Spring Meeting and Foraminifera satellite workshop 2012. The committee encourages student members to apply in 2013. Details and the application form can be found on the website (28th February 2013 deadline).

**TMS Student Awards**
The Society has made 11 awards to outstanding undergraduate and Masters students in 2012 (one year free membership):

Mar Alonso (Universidad del País Vasco), Tim Collart (University of Ghent - K.U. Leuven), Ellen Margaret Foster (Keele University), Assad Ghazwani (King Fahd University of Petroleum and Minerals), Thomas Goode (University of Southampton), Gerallt Hughes (Cardiff University), Robbie Moore (University of Plymouth), Richard Ott (Eberhard-Karls Universität Tübingen), Edward Pizzey (University of Bristol), Hayley Wilkinson (University of Birmingham) and Megan Williams (University of Leicester). The Committee strongly encourages any member who runs an undergraduate or Masters course in micropalaeontology to apply to join the Student Award Scheme (details and application form are on the website).

**Affiliations**
TMS is affiliated with various societies, operating exclusively for scientific and educational purposes and not for profit, to collaborate in the advancement of research and education in the discipline of micropalaeontology. We are delighted to welcome our recently agreed affiliation partner The Cushman Foundation, who have an interesting article on page 39. TMS is pleased to be affiliated with: The Cushman Foundation, The Grzybowski Foundation, The International Nannoplankton Association, InterRad and The International Research Group on Ostracoda.

**Website**
Tom Russon continued his great work on the TMS website through 2012, keeping the site up-to-date with meeting information, publications, awards and so on, and setting up a dedicated Jobs section. Any new jobs advertised will in future be placed on the front page of the website. Janine Pendleton has taken over as Webmaster since November, and I wish her all the best in her new role.
**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.

**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 2013**

**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 2012 and will be presented at The Micropalaeontological Society AGM in November 2013. Nominations for the best paper published in 2012 should be submitted to the TMS Secretary by 28th February 2013.
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.


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.

REPORT – ANNUAL GENERAL MEETING 2012
THE DE LA BECHE LECTURE THEATRE, BRITISH GEOLOGICAL SURVEY, KEYWORTH
SUNDAY 11TH TO TUESDAY 13TH NOVEMBER 2012

DAY 1: HUNTING CHARNIA IN BRADGATE PARK
On Sunday 11th of November the day started with an early pick-up at The Rutland Square Hotel in Nottingham by field-trip leader Jim Riding. George Swann met the group, which included Kate Darling, Adeyinka Aturamu, Isabel Fenton and Sev Kender, at Bradgate Country Park car park at the start of a glorious sunny day. We set off by climbing the central hill towards ‘Old John Tower’, a peculiar 18th century folly built on top of Leicestershire’s highest point, and could survey the surrounding patchwork of open land and trees that forms part of ancient Charnwood Forest (Photo 1).

As we braved an incessant cold northerly wind, Jim provided background information on the heavily cleaved metasediments forming a beautiful ridge of Precambrian outcrops. After searching for primary sedimentary structures we rounded the summit to find a spectacular large outcrop exposed along a bedding plane. After an unsuccessful initial search for fossil Charnia, we tried our luck at another nearby large outcrop next to a war memorial – and by happy chance were able to observe the Memorial Day two-minute silence. We were thrilled to discover several well-preserved impressions of circular

Photo 1: The field trip group (from left, Adeyinka Aturamu, Kate Darling, Isabel Fenton, George Swann, Jim Riding) setting off towards Old John Tower in Bradgate Country Park, Sunday 11th November 2012.
Charnia hold-fasts (Photos 2 and 3). We passed herds of fallow deer (Photo 4) on our way down to view further Precambrian outcrops containing clear synsedimentary folds and slumps, and enjoyed our lunch of pork pies kindly provided by local Melton Mowbray resident George. As we circled the Country Park, weaving past several outcrops of shales and sandstones (and the Deer Barn Tea Room), Jim recounted the story of Lady Jane Grey and the chopping of veteran oaks in sympathy with her execution, clearly marking the landscape. Our final outcrop of metamorphosed coarse sands and shales was close-by to ruins of a magnificent Tudor house thought to be the earliest unfortified mansion of the period and to have been a residence of Lady Jane Grey. After walking the remainder of our circular route past a range of beautiful vegetation and landscapes, we rounded off our enjoyable day with a visit to a local pub.

**Photo 2: The field trip group (from left, Sev Kender, George Swann, Kate Darling, Adeyinka Aturamu, Isabel Fenton) pointing to their discovery of Ediacaran fossil Charnia.**

**Photo 3: Ediacaran fossil genus Charniodiscus Ford 1958 from Memorial Crags, Bradgate Park, Leicestershire (565 to 555 Ma old fossil).**

**Photo 4: Fallow deer sunbathing in Bradgate Country Park, Sunday 11th November 2012.**

**Day 2: Symposium on ‘Warm Worlds’**

The 42nd TMS Annual General Meeting was opened by short introductions from Jim Riding, John Ludden (Director of the BGS) and Mike Ellis (Head of Climate Change Science), and was followed by a range of invited talks on the topic of “Warm Worlds”.

The first talk was by Alan Haywood (University of Leeds) who presented the current state of affairs on palaeoclimate modelling, data comparisons and the direction of future research. The next speaker was Emanuela Mattioli (University of Lyon) who showed that the size of the calcareous nannoplankton *Schizosphaerella* evolved inversely with temperature. Jenny Pike (Cardiff University) showed the results of a study on diatoms and their use to reconstruct seasonal melt-water discharge around Antarctica. The final pre-coffee speaker was Andy Purvis (Imperial College London) who presented the macroevolutionary and macroecological patterns of planktonic foraminifera across the Eocene–Oligocene boundary. After coffee, the final talk of the day came from Jörg Pross (Goethe University Frankfurt) who showed the results from the Early Eocene portion of IODP Site U1356. The poster session was well represented with 25 posters, and well attended during the coffee break and drinks reception.
AGM Society Business followed the talks, which consisted of short reports from TMS Committee members Sev Kender, Jeremy Young, Paul Smith, Mark Williams and Haydon Bailey. After the election of new Society Officers, Paul Smith presented the TMS Awards for 2012. The Charles Downie Award was presented to Tracy Aze, the Alan Higgins Award was presented to Tom Dunkley Jones, and the Brady Medal for 2012 was presented to Richard J. Aldridge (Photo 5). Richard gave both an interesting and humorous acceptance speech recounting several interesting stories and giving gratitude for the award. The drinks reception took place in the main foyer of the BGS in amongst the posters, with a wide selection of beverages and ‘salty snacks’ on offer. A coach transported participants to the fully-booked Merchants Restaurant for the evening meal in Nottingham. Some took advantage of the free evening to catch up late into the night with one (or two) nightcaps.

Photo 5: Richard Aldridge (right) receiving the Brady Medal from Paul Smith at the TMS AGM on Monday 12th November 2012.

**Day 3: Open Sessions on Micropalaeontology**

The second session started with the Industrial Keynote speaker Martine Hardy (ExxonMobil), who gave a lecture on a recent study of a shale gas play in Poland. She showed how the integration of palynology and geochemistry had improved the understanding of an unconventional shale gas. The morning continued with an Open Session of short, sharp ten minute talks. Our first speaker was Haydon Bailey (Network Stratigraphic Consulting Ltd), who showed the value of microfossils to the hydrocarbon industry (more than $2 billion a year for the North Sea alone!). Next, Vanessa Bowman (University of Leeds) presented evidence for Antarctic sea ice during the Late Cretaceous. Taniel Danelian (University of Lille) spoke about applying radiolarian biochronology to the ophiolite cover sediments in Armenia. Alice Kennedy (Open University) presented some of her initial PhD findings on the Toarcian Oceanic Anoxic Event from the UK. The final speaker before the coffee break was Ben Kotrc (Harvard University) who spoke about the empirical morphospace of planktonic diatoms and how over the Cenozoic there has been morphological stasis.

After the coffee break Matthew Pound (Northumbria University) spoke about global Miocene vegetation and climate. Then Johan Renaudie (Museum für Naturkunde, Berlin) presented current research into high-resolution radiolarian stratigraphy for the Neogene around Antarctica. Mike Rogerson (University of Hull) gave a talk on post-mortem transport and sorting of benthic foraminifera. Ulrich Salzmann (Northumbria University) presented the Miocene vegetation and climate results from IODP Site U1356. Thomas Servais (University of Lille) showed how abnormal acritarchs become more abundant leading into δ^{13}C excursions, and asked others to keep an eye open for ‘unusual’ morphologies. Deborah Wall-Palmer (Plymouth University) then presented the use of pteropods as a proxy for surface ocean carbonate concentrations during the Late Pleistocene. The penultimate talk was given by Geoff Warrington (University of Leicester) who provided an overview of Permian miospore records from the UK, and the final presentation came from Mark Williams (University of Leicester) who presented a talk on recent collaborations with the Archaeology Department to investigate the provenance of Iron Age artefacts from Burrough Hill fort, Leicestershire.

The Poster Session continued through the coffee break and lunch, which was provided. The closure of the AGM was conducted by Paul Smith, who summed-up the meeting by thanking the organisers and sponsors, and by remarking on the success of the new format and decision to continue with it into 2013.

By Sev Kender and Matthew Pound


The accounts for the year from November 2011 to 2012 are presented in the associated table (p. 17). The bottom line is that we made a surplus on the year of just over £4000 despite continuing to support a high level of activity and despite a major increase in the cost of the Newsletter. This is in part due to a windfall from backdated Gift Aid of about £1500 but there are no other large exceptional items. So, we will not need to increase membership subscriptions and will be able to be slightly more generous with our expenditure next year.

**INCOME**

Membership subscription income has increased by about £1000 over the year which is both financially useful and a gratifying endorsement that the society is appreciated. Almost half of subscriptions are now paid online which is very welcome since this is the easiest way for the Treasurer and Membership Secretary to handle payments. Our long term problems with direct debit payments have finally been resolved and following this the membership secretary is now going to be handling direct debits, which is a sensible rationalisation of responsibilities.

Publication related income has been boosted by sponsorship of the Newsletter by Fugro Robertson, we have used this to include colour printing in the newsletter which is a major help in our goal to make this an increasingly high quality and useful publication. Success in this direction is reflected in a steady increase in advertising income and the continuing contributions from the Gryzbowski Foundation, International Research Group on Ostracoda and International Nannoplankton Association.

Within the miscellaneous income Gift Aid is the major contributor. This is a scheme whereby as a UK based charity we can reclaim income tax paid by UK tax-paying subscribers on their membership dues. Despite the ever more international character of our membership we do in fact still have a large UK membership and most of these have agreed to gift aid their subscriptions (some members have their subscriptions paid by their companies or reclaim the tax personally). This is worth about £850/year to us. The process of claiming Gift Aid is rather laborious and it can be done retrospectively, so we only do it every couple of years, hence inclusion of Gift Aid for 2011. In addition this year we undertook a rigorous comparison of our database records of who was Gift Aid subscriber with the paper copies of agreements. This significantly increased the number of Gift Aid claims and we also contacted all UK based members for whom we had no records of Gift Aid agreements which had a good response.

**EXPENDITURE**

Publication costs - the Newsletter costs have increased both because of the higher quality printing permitted by the sponsorship from Fugro Robertson but also because UK postage rates have increased very substantially. We have also decided as a society to support occasional use of colour plates in the Journal, members should ask the editor (Alan Lord) if they wish to do this.

Last years AGM was on similar format to the previous year and cost a similar amount. The new format of the AGM (to be held as a two day meeting at BGS Nottingham) will change the finances of the meeting. We had hoped that this would not significantly change the net cost but it now (Dec 2012) appears likely that the conference will have cost the society about £1500 more than the 2011 AGM.

Our expenditure on meetings and awards, includes grants in aid, the annual awards presented at the AGM, supporting TMS group meetings and sponsoring other conferences where this will effectively support the society and micropalaeontology. This activity continues at very similar level to last year. Meetings supported included the TMS joint Foram and Nannofossil Group meeting in Edinburgh, the associated foraminifera taxonomy workshop held at St. Andrews, the Lyell Meeting on “Big Palaeontology” which TMS organised, the Inter-Rad meeting, and the 9th International Workshop on Agglutinating Foraminifera. We also participated for the first time at the Lyme Regis Fossil Festival and our stall fee of £250 contributed directly to core costs of the festival...
## TMS Statement of accounts for financial year 2010 - 2011

### INCOME

<table>
<thead>
<tr>
<th>Notes</th>
<th>INCOME DURING YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>BALANCE FROM 2009-2010</td>
<td>25,802.37</td>
</tr>
<tr>
<td>Closing balance in 2009-10 accounts</td>
<td>25,802.37</td>
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</table>

**Membership & subscriptions**

- Individual membership: 13,904.00
- Journal Subscriptions: 95.00

**Total Subscription income**: 14,068.00

**Membership & subscriptions**

- Total newsletter: 3,889.69
- Newsletter 83 printing: 947.00
- Newsletter 83 postage: 832.09

**INCOME DURING YEAR**

- Newsletter 84 printing: 940.00
- Newsletter 84 postage: 1,170.60
- Newsletter - advertisements (2011): 930.00
- Newsl contrib - Gryzbowski Foundation: 95.00
- Newsl contrib - Int Nannoplankton Assoc: 348.00

**Membership & subscriptions**

- Total AGM: 3,138.66
- Int Pal Ass Subscription (2010-2012): 195.83
- IF'S subscription 2011: 96.68

**Miscellaneous income**

- Higgins Fund donation: 100.00
- Amazon click-through: 29.76
- Gift Aid: 7.72

**Publication-related income**

- Spec publ royalties - GSPH: 738.79
- Newsletter contributions: 95.47
- Newsletter - advertisements (2011): 280.00
- Newsletter - advertisements (2011): 280.00
- Newsletter - advertisements (2011): 930.00

**Publication-related income**

- NewsleUter editor (software): 116.00
- Journal Editor (hospitality): 155.00
- Travel to committee meetings: 1,119.05
- Miscellaneous: 49.90

**Miscellaneous income**

- Higgins Award: 300.00
- Downie Award: 200.00
- Study Medal (casting & engraving): 499.78
- Sponsorship of DIN09, Liverpool: 500.00
- Sponsorship of AASIP11, Southampton: 500.00
- Sponsorship of Siliceous Biomarkers conference: 748.23
- TMS Pal-y-silico groups meeting: 92.38
- TMS Foram nannofossil group meeting: 157.83
- Int Pal Ass Subscription (2010-2012): 195.83
- P' S subscription 2011: 96.68

**TOTAL INCOME**: 17,467.03

**Automatic Summary**

- TOTAL INCOME: 17,467.03

### EXPENDITURE

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<tr>
<td>INCOME DURING YEAR</td>
<td>NewsleUter 84 printing</td>
</tr>
<tr>
<td>Membership &amp; subscriptions</td>
<td>Newsletter 84 postage</td>
</tr>
</tbody>
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### SUMMARY OF FINANCIAL SITUATION

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<td>Opening balance</td>
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<td>Income</td>
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<td>Closing balance</td>
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**Automatic Summary**

- This closing balance includes:
  - Downie Fund: 1704.52
  - Higgins Fund: 1305

**TOTAL EXPENDITURE**: 15,609.59

### TMS EDUCATIONAL TRUST ACCOUNT

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<tr>
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<td>Income</td>
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<td>Expenditure</td>
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<tr>
<td>Closing balance</td>
<td>12010.00</td>
</tr>
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**Automatic Summary**

- This financial period ran from 27th October 2010 to 10th Nov 2011

### NOTES

1. This is the closing balance from the published accounts for 2009-10
2. The journal subscription item is royalty payment from GSPH for Journal of Micropaleontology for the last quarter of 2010. Under the new contract with GSPH this item will no longer appear, and we no longer pay for publication of the journal.
3. The affiliation fees from the Gryzbowski Foundation and the INA are used to offset costs of posting the newsletter to their members.
4. Website hosting, we are now using a commercial hosting service for our website.
5. Amazon click-through - advertising revenue from the TMS website.
6. Gift Aid - we can reclaim income tax on UK taxpayers subscriptions. Last year we made a claim for 3 years gift aid, and the sum in this years accounts is the difference between the amount anticipated in last years’ accounts and the actual outcome.
7. These items were not included in the accounts presented at the AGM but were paid immediately afterwards and relate to the 2010-11 financial year so have been added here.
as well as providing an opportunity to interest members of the public in microfossils. In addition we used the TMS PayPal account for registration for the FNG meeting, the credit card system for registration for the AGM and handled the finances for the Lyell Meeting. This type of use of our financial systems is a significant part of the treasurer’s work and involves extra work for the membership secretary and website editor but does provide a significant service for meeting organisers.

Committee expenses have again risen somewhat over the year, reflecting the fact that travel cost are rising and that with the society finances being in a relatively good state committee members are more inclined to ask to be reimbursed.

Charges credit card payments continue to be irritatingly expensive - we are charged £38/month for use of the terminal. We partially offset this by charging a £1 supplement per year but this only raises about £100 toward the cost of £450.

**TMS Education Trust**
The accounts for the Education Trust are presented in a separate table, to emphasise the separation of the entities. Income over the year was substantial with generous donations from British Gas International and Shell Global Solutions. Expenditure has also commenced with a series of grants to students on the new Birmingham Msc course. A new round of grants will be announced in early 2013. It should be stressed that grant applications are welcome in support of post-graduate training in micropalaeontology at any institution.


Alan Lord, Editor-in-Chief

Editor-in-Chief: Alan Lord (Frankfurt-am-Main). Editors: Elisabeth Brouwers (Denver), F. John Gregory (Conwy), John Marshall (Southampton), Giles Miller (London), Martin Pearce (Houston), Catherine Stickley (Tromsø), Bridget Wade (Leeds), Jeremy Young (London). Production Editor: Sarah Gibbs.

**Volume 31**

Vol. 31, part 1 was published on 14 February 2012, vol. 31, part 2 was published on 18 August 2012. The volume contained 13 original papers, 1 Micropalaeontology Notebook item, 1 collection article and 1 Brady Medal honorarium. Volume 32(1) is full and in process of production for January 2013.

**Submission/Rejection Rates**

In 2012 to date, 21 manuscripts have been submitted of which 7 have been accepted, 7 rejected, 2 withdrawn and 5 are under review. In 2011 there were 36 manuscripts received, 23 accepted, 12 rejected and one paper withdrawn. The rate of submissions has slowed this year as follows: 2008 – 17, 2009 – 21, 2010 – 26, 2011 – 36 and (as of November 1st) – 21.

**Electronic Manuscript Management System**

This has been delayed and the Geological Society Publishing House is in process of contracting for a new system in which Journal of Micropalaeontology will be automatically included. It is anticipated that the new system will be working within the next twelve months.

**General**

The strategic aim of advancing the publication dates of the parts within the year was achieved with 31(1) published in February 2012 and 31(2) in August 2012.

**Impact Factor**

The IF improved during the 2010-2011 cycle as follows: 2007 – 0.258, 2008 – 0.406, 2009 – 0.375, 2010 – 0.719, 2011 – 0.759.

While the trend is satisfactory the rate of change is not. For comparison, the IF for 2011 for Marine Micropaleontology is 2.000 (down), for Journal of Foraminiferal Research 1.688 (up), Micropaleontology 0.569 (up), and Journal of Systematic Palaeontology 3.000 (down); and for contrast Nature is 36.280.
ARTICLES
J W Murray
‘Living benthic foraminifera: biogeographic distributions and the significance of rare species’

J L Pendleton & C H Wellman
‘Pennsylvanian (mid-Bolsovian to Asturian) megaspores and large pollen of the Bristol Coalfield, UK’

J Renaudie & D B Lazarus
‘New species of Neogene radiolarians from the Southern Ocean – part II’

MICROPALAEONTOLOGY NOTEBOOK
T R A Vandenbroucke, J Hennissen & T Servais
‘Cyathochitina cycnea (Chitinozoa), a new name for Cyathochitina giraffa Hennissen et al. 2010’

OPEN-ACCESS
It is likely that Geological Society own journals will accommodate both Gold (ie. author pays) and Green Open-Access (ie. posted on a repository, free of charge) requirements in accordance with RCUK policy. To put the matter in perspective, Journal of Micropalaeontology between 2009 and 2011 published 16 articles for which the ‘UK funded lead author’ was 3 (19%) and ‘UK lead author + UK contributors’ totalled 5 (= 31%). In other words, UK funded articles are a relatively minor component of published material.

GEOSCIENCEWORLD (GSW)
GSW (http://www.gswhome.org/) is not-for-profit consortium of 7 leading geosciences publishers. The GSW committee responsible for journal content has discussed and agreed that they wish to include Journal of Micropalaeontology in GSW. The next step is for the GSW Board to approve this when it meets in early November. Development work would be during first half of 2013, with launch in the summer (subject to confirmation with the platform host HighWire Press). Journal of Micropalaeontology will launch as a standard site with all core features. GSL and GSW will meet all the costs of the launch.

ONLINE-FIRST AND TAXONOMY
Both ICBN and ICZN have approved electronic publication of new taxa. Journal of Micropalaeontology Instructions for Authors are in process of updating to reflect this change. ICZN require that new taxa be registered with their ZooBank. This will be the responsibility of the Editor-in-Chief, who is registered with ZooBank. ICBN appears not to require such registration.

EDITORS
Dr Bridget Wade (Leeds) has been appointed Editor for Foraminifera.

Thanks to all the editors for their work during the past year. Sarah Gibbs is gratefully acknowledged for tolerating the vagaries of authors and the Editor-in-Chief.
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.

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<thead>
<tr>
<th>TMS Student Award – Course Registration Form</th>
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<tr>
<td>Nominating Tutor:</td>
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<tr>
<td>TMS Membership Nr:</td>
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<tr>
<td>University/Higher Education Institution:</td>
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<tr>
<td>Course Name:</td>
</tr>
<tr>
<td>Course Description (level, number of students, hours of instruction etc.):</td>
</tr>
<tr>
<td>Date:</td>
</tr>
</tbody>
</table>

*Please return by mail or electronically to TMS Secretary*

The Micropalaeontological Society  
http://www.tmsoc.org  
Registered as a Charity No 284013
**Specialist Group News**

**Silicofossil Group Report**

**CLAIRE ALLEN**

**2013 SILICOFOSSIL GROUP MEETING**

“**SILICEOUS ORGANISMS: DEVELOPMENTS, TECHNIQUES AND APPLICATIONS**”

**AUGUST 28th – 30th, CAMBRIDGE, UK**

The Micropalaeontology Society (TMS) Silicofossil Group covers all of the silica biomineralisers (diatoms, radiolarians, phytoliths, silicoflagellates, sponges, etc.) from marine, freshwater and terrestrial habitats. Our bi-annual meetings bring together people with a wide variety of expertise who share a common interest in siliceous organisms. The 2013 Silicofossil Group Meeting will be held at the British Antarctic Survey in Cambridge, UK between the 28th to 30th August.

The meeting is open to all levels: industrial; academic; students and professionals and you do not have to be a member of TMS to attend. We will welcome presentations (talk/poster) on any aspect related with silica-precipitating organisms, including technical developments, geochemical properties, environmental and industrial applications.

Please add these dates to your diary and consider presenting at this unique gathering. The first circular with meeting and registration details will be posted early in 2013 (http://www.tmsoc.org/silicofossil.htm).

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**Foraminifera Group Report**

**WILLIAM AUSTIN & KIRSTY EDGAR**

At the 2012 AGM, held at the British Geological Survey, Keyworth, Bill Austin (University of St Andrews) and Kirsty Edgar (Cardiff University) took over the role of Foraminiferal Group chair and secretary, respectively.

First, we would like to thank Kate Darling (University of Edinburgh) and Phil Sexton (Open University), the outgoing chair and secretary, for their excellent work over recent years. Kate, in particular, finished her term as chair on a high note, having organized a very successful Foraminifera and Nannofossil Groups joint Meeting at the University of Edinburgh in June 2012 (see Newsletter 86 for reports). The Edinburgh meeting and the associated satellite workshop on benthic foraminifera at the University of St Andrews, proved an excellent occasion to acknowledge and celebrate Kate’s appointment to a honorary Professorship at the University of St Andrews, in recognition of her research contributions.

At this time, we are looking forward to the TMS Foraminifera and Nannofossil Group joint meeting 2013, which will take place between 19-22 June 2013 in Prague, Czech Republic and is being organized by Katarina Holcová and colleagues (see p. 5).

On the horizon, we plan to run a one-day workshop on “morphometrics in micropalaeontology” and are currently assessing possible dates to host the meeting at the Geological Society’s Burlington House headquarters in central London. We welcome early expressions of interest by e-mail to either Bill (bill.austin@st-andrews.ac.uk) or Kirsty (EdgarK1@cardiff.ac.uk).

Some other meeting dates for your diary: (1) The next EGU General Assembly in Vienna, Austria (7-12 April 2013) has a number of exciting sessions including “Coastal ecosystems under anthropogenic pressure: impacts on ecosystem structure and services” and “Changes in Cenozoic CO₂: Causes, feedbacks and biotic responses” to name just a few; (2) Goldschmidt 2013 (25-30 August 2013) in Florence, Italy.
This year will close with a change of staff for the Palynology Group. My four years as Secretary are coming to an end, and Luke Mander (University of Plymouth) will be taking over these duties. Needless to say it’s been tremendous fun, especially meeting many of you at the group meetings and elsewhere, but rest assured I’m leaving you in good hands! Fabienne is still at the helm of course, and so things are sure to continue smoothly as far as the Palynology Group is concerned. Fabienne’s report on the joint IPC XIII/IOPC IX conference that took place in Tokyo in August is elsewhere in the newsletter (p. 9).

Planning is underway for a 2013 meeting of the TMS Palynology Group; Luke or Fabienne will be in touch in the New Year with more details. I’ll hopefully see a lot of you there!
Nannofossil Group Report
SIMON COLE

Myself and Matt Hampton have recently taken the positions of nannofossil working group secretary and chair. We wish to thank Karl-Heinz Baumann and Tom Dunkley Jones for their valuable contributions to this group over the last few years. As quick introductions; both Matt and I work in the ‘dirty’ side of nannopalaeontology – we are biostratigraphers in industry and are often found frequenting oil rigs throughout the World.

The nannofossil community looks forward to another busy year: The annual Foraminifera and Nannofossil Groups Spring Meeting will be held between 19-21 June in the beautiful city of Prague, Czech Republic. Hosted by Katarina Holcová and colleagues at the Geology Institutes of Faculty of Science, Charles University, the meeting entitled: “Micropalaeontological record of global change: from epicontinental seas to open ocean” will contain talks ranging from the subjects taxonomy, ecology and palaeoecology to biogeography and biostratigraphy. The technical sessions will be broken up with some time to sample the local Czech brews during the conference dinner and again during the post-conference fieldtrip to an Upper Cretaceous rocky-shore and littoral facies with foraminifera and calcareous nannoplankton near the historic town of Kutná Hora... Na zdraví!

After a three year wait, the 14th International Nannoplankton Association (INA14) Meeting will be held from 15-21 September at the US Geological Survey’s HQ in Reston, Virginia. Conference host Jean Self-Trail has done a fine job of coordinating what looks like a very interesting programme at relatively short notice. Check out the website https://my.usgs.gov/ina14/ for more details on registration (open) and abstract submission (deadline 15 June). The meeting promises to showcase some of the best nannofossil research currently being undertaken and the location, just outside Washington D.C., offers an extensive list of extra-curricular activities (see website) from great wineries, to beautiful national parks, to World class museums and restaurants. Get in early to sign up for the intriguing “Geology and Wine of the Culpepper Basin” pre-meeting field trip!

Ostracod Group Report
MATT WAKEFIELD

OSTRACOD GROUP MEETING; 6TH OCTOBER 2012

The meeting was organised and hosted by Mick Frogley at the University of Sussex. Our thanks go to Mick and to the university for allowing us to use its facilities.

Ginny Bernardout (Queen Mary University of London, QMUL); “Testing proxy methods for palaeoclimate reconstruction: ostracods & chironomids in lake sediments from Yukon Territory, Canada”. Unfortunately Ginny was ill so Dave Horne gave her talk. Ginny’s PhD studies are focussed on the Delorme (Canada) and US databases but include Joan Bunbury’s arctic Canada work. She aims to recalibrate MOTR and compare it with the Chironomid Modern Analogue Technique (CMAT). Initial work indicates that mean CMAT and July (minimum) MOTR temperature curves are grossly similar but details of the curves do not match. In part this may be down to the data coming from three cores (the third core provides the radiocarbon dating) that have not been properly correlated, as the mismatch appears to be by only a few samples. The Bunbury OPTIMA calculation is at the lower end of the MOTR calculation for the same species and some are lower still. Further work will aim to include NODE data into the MOTR methodology and will investigate how abundance data may refine MOTR.

Tasnim Patel (QMUL); “From OMEGA to BioFresh; harmonising Recent freshwater ostracod datasets on both sides of the Atlantic”. BioFresh is a EU funded freshwater species database project that will be free and publicly available. Tasnim is building the ostracod portion of this to enable mapping of taxon distribution in Europe (NODE; 10k records + 2k fossil records,
419 spp.), Canada (NONODE; 2.6k records, 109 spp.), the US (DOAD; 30k records, 128 spp.) and Australia using the existing databases (other countries may be added) giving a grand total of 574 unique species. Her current work is aimed at harmonising spelling, taxonomy and geographical errors.

Michaela Radl (QMUL); “Analysis of meiofauna in sediment cores to investigate the influence of sea-level rise on saltmarsh development and succession”. Michaela is investigating nine marshes: four each in England and Scotland and one from Wales. These were chosen to tie with the effects of glacial rebound such that some marshes will be prograding and other retrograding. At the Tollesbury site she is undertaking a monthly census to understand seasonal variations. Her review of surface sample data indicates that ostracods are not seen in any of the high marshes (dominated by forams) but only the mid and lower marshes. Jadammina dominates the three cores available from than Gann Estuary site, while it counter correlates with Trochammina at Tollesbury. OSL will be used to date faunal changes in the cores.

Mick Frogley (University of Sussex); “Mites, mud and the rise and fall of the Inca? Oribatid mite abundances as indicators of domestic animal densities”. Mick described his part in a multi-disciplinary study on a 6m core from an infilled lake near Marcacocha, Peru, that gives a 4.5ky record. The colourful talk covered the delights of llama dung through the ready availability of roasted guinea-pigs and some glorious panoramas. Results to date have used oribatid mite abundances in the sediment as a proxy for economic strength/agriculture. The record ties to the rise of the Inca civilisation, their fall in the early 1500s following the arrival of the Spanish and re-population in the 1700s. Further work will test this proxy against the established coprophilous fungi proxy, while Mick will start to look at the ostracod record from the lake.

John Whittaker (Natural History Museum); “The Temple of Mithras site, Walbrook, central London – Roman Archaeology and a remarkable Devensian ostracod find from a possible pingo”. John described preliminary findings from his work for MOLA (Museum of London, Archaeology) at the site of the new Bloomberg European headquarters. The site was originally dug in the 1950s (the Bucklesbury House digs) with the Temple being moved from its original site to form part of the current pavement. The possible pingo was 15m in diameter and sits 11m into the London Clay. OSL dating of 109ka (+/-19ky) towards the base of the core places the feature in the early Devensian stages 5b-d. The ostracod fauna contains 12 taxa of which eight are still living. *Limnocythere falcata*, *Limnocythere suessenbornesis* and *Leucocythere batesi* suggest a cool climate, while the presence of *Ilyocypris schwartzbachii* may indicate some warming towards the top of the current studies section (sections 0-4m and 6-10m have yet to be analysed).

Dave Horne (QMUL); “Seeing through the walls; internal morphology of closed Cypridea carapaces revealed by X-ray tomography”. This talk was an update on the work presented at the group meeting in October 2010 where Steve Sweetman (University of Portsmouth) & Dave described ostracods from plant debris beds in the Wessex Formation (Barremian), Isle of White. All the ostracods recorded are preserved as carapaces, though whether this is a taphonomic or an artefact of Steve’s processing for vertebrate teeth has not yet been determined. Dave showed two computer animations of 3-D X-ray tomographs of a species of Cypridea. These showed some interesting detail of the rostrum and some possible soft-part preservation in the form of a bilateral mass within the carapace, what looks like a possible adductor muscle and some possible antennae. It is hoped that with more work the soft part anatomy of Cypridea may be described and the function of the rostrum & notch be better elucidated.

Alan Lord (Senckenberg Museum); “Continental drift, terrestrial environments and Ostracoda”. Alan gave an eloquent commentary on the development of the idea of continental drift discussing the seminal work of Alfred Wegener and Alexander du Toit. This was linked to the work by Karl Krommelbein at the Senckenberg on the Mesozoic ostracods of Brazil. A resurgence of interest in Karl’s work is being driven by the billion barrel finds of oil offshore Brazil in the Santos Basin.
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A note from the Chairman’s desk
Mike Kaminski, King Fahd University of Petroleum & Minerals

This spring has been an eventful one for the Grzybowski Foundation – in September we organized a successful workshop in Spain and at the same time published Grzybowski Foundation Special Publication nr. 17. Plans have also been made to host the next GF events – the MIKRO meeting and the next International Workshop on Agglutinated Foraminifera (IWAF).

The 9th IWAF was held in Zaragoza in September, and 52 participants were present. Laia Alegret and Silvia Ortiz deserve the credit for putting together a program that included the annual meeting of the “International Working Group on Foraminiferal Classification”, a technical session with oral and poster presentations, and a field trip to see the famous Zuamaia section along the north coast of Spain. Another “Grzybowski Book” is planned that will contain the IWAF-9 conference proceedings (See report).

Along these lines, we are pleased to report that the next IWAF meeting will be held in Slovakia in September, 2016. Jan Sotak from the Slovak Academy of Sciences has kindly agreed to host the next workshop.

In 2011 the GF hosted a successful meeting of the TMS Foraminiferal/Nannofossil groups, which was held in conjunction with our bi-annual MIKRO-meeting. Keeping according to our previous schedule, we ought to hold the next MIKRO-meeting in the late spring of 2013. After discussion with GF members, it was decided not to hold a separate MIKRO-meeting, but to combine our efforts with the Polish-Czech-Slovak Palaeontological meetings. The next “Joint MIKRO-PCS meeting” will be held at the AGH University of Science & Technology in Kraków, on October 17-19, 2013. This new venue will now bring together both Micro- and Macro- palaeontologists under one roof, and the science can only benefit from such an event. The next meeting will be organised by Anna Waskowska and Marta Bak, who already have excellent experience hosting the previous TMS/MIKRO-meeting.

The next great event organized by the Foundation will be the “Summer School of Foraminifera” which will be taught at the University of Urbino in June 2013. This year the ISF course will be two full weeks, and will consist of three modules: larger foraminifera, smaller benthics, and planktonics. The newly added module on larger foraminifera will be taught by Johann Hohenegger (U. Vienna), G. Wyn Hughes (KFUPM), Cesare Papazzoni (U. Modena) and Antonino Briguglio (U. Vienna) and will cover the Jurassic to Recent occurrences of these important microfossil groups. There are still some open spaces for this year’s course – to reserve your place, please contact Fabrizio Frontalini.

This semester, the Grzybowski Library will be significantly increasing its holdings thanks to a donation of reprints on the Foraminifera organized by Giles Miller from the Natural History Museum (London). Giles and colleagues have re-organized the reprints holdings housed in the Heron-Allen Library, and now the GF will benefit from receiving the duplicates. The new reprints will be added to the existing “Stan Geroch” reprint library. We wish to extend our sincere gratitude to Giles Miller and the curators at the NHM for arranging this valuable donation. It looks like our GF Librarian will be kept busy this year….

Also this semester, the GF website will be completely updated and will gain a new look. We have employed a young computer enthusiast to re-design the website and add new items. One of the action items is to make open-access pdfs of all scientific articles published in the previous IWAF volumes.

We also wish to take this opportunity to congratulate some of our members and associates on their recent achievements. Johann Hohenegger (U. Vienna) was awarded the 2012
Grzybowski Award in recognition of his long-standing research and valuable contributions on the ecology and systematics of benthic foraminifera. Johann has been an active participant in the IWAF meetings as well as a member of the Working Group on Foraminiferal Classification since its inception. Congratulations are also in order to Zofia Dubicka who successfully defended her PhD thesis on the subject of “Foraminifera and Stratigraphy of the Upper Cretaceous from the Halych area (western Ukraine)”. The thesis defence took place at the Museum of Evolution in the Palace of Culture in Warszawa. Zofia did the interdisciplinary PhD program at the Institute of Paleobiology, Polish Academy of Sciences, under the supervision of Danuta Peryt. She will take up a position at the University of Warszawa beginning next semester. Szabolcs Flavius Szekely from Cluj (last year’s recipient of the Brian O’Neill Memorial Grant-in-aid) has been awarded a one-year Sciex scholarship in Switzerland, where he will be continuing his PhD research with Prof. Silvia Spezzaferri. In January, Eiichi Setoyama will be taking up a postdoctoral position at KFUPM in Saudi Arabia.

Finally it is with a deep sense of regret that we note the passing of two of our colleagues. Prof. Henryk Jurkiewicz passed away suddenly in November at the age of 86. He was the first democratically elected Rector of Jan Kochanowski University in Kielce, Poland, where built up the Geology program within the Geography Department. Henryk Jurkiewicz was one of the pioneers in the study of deep-water agglutinated foraminifera. In 1960, he described the species Gomospira grzybowski, and in 1967 published a classic monograph on the Palaeogene DWAF fauna from southeastern Poland. In the big international push to study the faunal changes at the Palaeocene/Eocene boundary, this study has been sadly forgotten. Although much has recently been written about the “Gomospira Acme” at the P/E boundary, almost nobody acknowledges the fact that it was Henryk Jurkiewicz who discovered this event in the first place! True, his monograph was written in Polish, but nowadays with Google Translate, that’s no excuse. At the end of October, Dr. Andrzej Koszarowski passed away after a long illness. Andrzej helped organise the very first GF activity back in 1992 – a field excursion through the Carpathians that was later written up as a GF field guidebook and published as GFSP-6. In fact a photo of Andrzej appears on page 145 of that book. Both of our colleagues will be sadly missed…
In October 2012, Brno hosted the 13th Czech-Slovak-Polish Palaeontological Conference. Fortunately the CS-SK-PL palaeontologists are not at all superstitious and attended the meeting. Despite the unlucky number, I believe everybody had a good time in Brno. The tradition of the meetings continues the older tradition of the Czechoslovak palaeontological conferences. The meeting was located in the facilities of the Gregor Mendel Museum in Old Town of Brno, on Mendel Square. The format of the meeting comprised 15-minute talks including discussion, poster displays and Czech, Slovak, Polish, and English as a communication languages. The programme kept the participants busy for one day and a half (Oct. 18th and 19th). The first evening, a guided tour to the museum was organised for us and we were shown some details of Gregor Mendel’s life and times, and the work that constituted the foundations of genetics. The evening party followed afterwards and brought refreshment for bodies (food, drinks) and minds (“Blackbird brothers” university jazz band) that were tired after the long first day of the meeting.

In the technical sessions of the meeting, the authors of lectures and posters bombarded us with new data on hyoliths, lizards, brachiopods, basking sharks, neanderthaler pray, disarticulated cirripeds, calamite stems, phacopid trilobites, Antarctic Cretaceous plants, Palaeozoic bivalves, killing anomalocarids etc. Nearly half of contributions dealt with micropalaeontology in a variety of its focuses. Most of microfossil groups were touched upon: forams,
calcareous nanofossils, ostracodes, radiolarians, calpionellids, conodonts, pollen/spores and calcareous algae.

It was a pleasure to see results of integrated research of larger teams like on the Early Badenian parastratotype (K. Holcová et al.), the Sarmatian biostratigraphy of the Vienna Basin (E. Halássová et al.), Lower Cretaceous planktic stratigraphy of the Puez section, Austria (J. Soták et al.), biotic changes during the Rhaetian transgression (J. Michalik et al.), Senonian integrated planktic stratigraphy (M. Smrečková et al.), etc. Specialists dealt with taxonomy of their groups and also with applied topics based on Miocene red algae (J. Hrabovský), Palaeogene nanofossils (S. Ozdínová), flysch-type agglutinated foraminifera (A. Waskowska and myself). Also some enigmatic fossils were shown to us, like the large agglutinated tubes from Lower Jurassic – Bathysiphon? or worm tubes (V. Šimo). Colleagues dealing with conodonts informed us about the limits of intercontinental correlation in the late Silurian (L. Slavík) and taxonomic problems with oldest forms of Siphonodella that are regrettably scarce (T. Kumpán & J. Kalvoda). Another Palaeozoic presentation described the ontogenesis of Ordovician ostracodes Conchoprimites (K. Lajbllová). Several presentations focused on the stratigraphy of selected levels like the Lower Cretaceous of the Krížna Nappe (D. Boorová & I. Filo), the upper Maastrichtian just below the K/T boundary in the Rača Unit (M. Bubík & L. Švábenická), the Miocene of eastern Slovakia (A. Zlinská). Also palynology was represented by classical pollen/spore Quaternary topics (E. Brízová et al., A. Dohnalová & N. Dolákova).

Although the program was quite busy, people utilized each free moment for the exchange of ideas, plans, samples etc. Like at some large family assembly, that after a year or more of busy work far each from other, one can finally fix plenty of problems all at once. I am grateful to the organizers Nela Doláková and Šárka Hladilová from the Geological Department of Masaryk University for their choice of an interesting place and fine social events. All who attended surely enjoyed the Brno meeting.

**Review: The 5th International School on Foraminifera, Urbino, Italy, 10th-20th June 2012**

SIMON D’HAENENS, UNIVERSITY OF LEUVEN

This June, for about two weeks, the streets of Urbino were filled with foram-enthusiasts for obvious reasons… With its 5th installment, the renowned International School on Foraminifera attracted many students and professionals from Africa, Asia, Europe, South America and the USA, eager to learn about these awesome little critters. Students included people at various stages in their academic careers (bachelor to post-doc level) as well as industrial micropalaeontologists. Their interests spanned the entire stratigraphic record, from Cretaceous to Recent. Organized by Fabrizio Frontalini of the University of Urbino and Mike Kaminski of the King Fahd University of Petroleum & Minerals, and under the auspices of, and with sponsorship of the Grzybowski Foundation, this course provides a state-of-the-art overview on foraminifera and their use in biostratigraphy, ecology, (palaeo)environmental reconstructions, climate studies and modern applications of benthic foraminifers in anthropogenically impacted environments. These topics were presented by Mike and Fabrizio, with the assistance of several guest lecturers: Laia Alegret (University of Zaragoza, Spain), Claudia Cetean (Fugro Robertson Limited) and Maria Rose Petrizzo (University of Milano, Italy).

The picturesque medieval city of Urbino is draped atop a hill, providing stunning panoramic views of the foothill landscape surrounding it. Undoubtedly equally beautiful is the local architecture and art: as a World Heritage
Site, Urbino is known for its exceptional legacy of independent Renaissance culture under the patronage of Federico da Montefeltro, the duke of Urbino in the 15th Century. Low cost accommodation for applicants was provided in the modern and luxurious Collegio Internazionale located in the city centre, only a stone’s throw away from the Piazza della Repubblica, which can be considered as the social hub and main “gelato” provider of Urbino. Speaking of food, although the campus had a great cafeteria, many students opted to explore the numerous marvellous restaurants in the city centre, as recommended by some more-experienced members. The on-campus accommodation had many benefits: not only did it allow for intense professional networking and fruitful discussions to be continued after-hours, but it was also an ideal way to meet up to go for dinner, amble around town and its surrounding fields, watch the European Football Championship games or explore the infamous local pubs at night.

The course itself consists of two parts, one dealing with benthic and the other with planktic foraminifera. They can be regarded as two separate entities that function independently, but most participants opted to follow both. Each course was constructed in a similar way, with lectures in the morning and microscope sessions in the afternoon. The lectures started off with basic taxonomic and morphological concepts, only to quickly delve into more complex matters, well illustrated with many case studies taken from the literature and personal experiences of the lecturers. This clever construction of the course made sure that it appealed to both amateurs as well as veterans in the field. The interactive and spontaneous nature of the classes was also reflected in the fact that students got the opportunity to present personal work, complementing the topic of the day. The microscope sessions were set up as an independent study time, but always ended up being interactive with lots of discussions and cooperation among students and lecturers. Samples from the lecturers’ extensive personal reference collections were available, as were reprints of a plethora of classic papers and books. This allowed for each student to fine-tune their skills or to do their personal work, which ranged from thesis research to industry-based applications.

The much-anticipated fieldtrip, which took place on the second day of the planktic course, was conceived to illustrate the fascinating geology of the Marche-Umbria region. In the morning, the stops included the Jurassic carbonate platforms and the Ammonitico Rosso near the Gola del Furlo, and the Contessa road section including the Bonarelli event (Oceanic Anoxic Event 2; OAE2) and the Palaeocene-Eocene Thermal Maximum (PETM). After having lunch in the gorgeous city of Gubbio, the fieldtrip resumed, with the next stop on our itinerary being the Bottaccione gorge. Here, the famous K/Pg boundary described by Alvarez and colleagues prompted a spontaneous photo shoot moment. The last stop of the fieldtrip was the lovely Gorgo a Cerbara section, a proposed GSSP for the Barremian/Aptian boundary including the Selli anoxic event (OAE1a). After this exhausting yet incredibly satisfying day in temperatures soaring to 40°C (so I have been told), it was time to sit back, relax and once again experience the wonders of Italian cooking at the social dinner. Set in a refurbished farm that has been converted to a brewery, we enjoyed our meals whilst “enduring” Mike’s and Rodolfo Coccioni’s epic karaoke rendition of “Volare” and ‘That’s Amore’. What a splendid way to end a wonderful day! I’m convinced that, at the end of the ten-day course, people new to the field of foraminifera left with a firm grasp on the concepts used in foraminifera-based research, while veterans had the opportunity to refresh, expand or polish their knowledge. But perhaps more importantly, the school has acted as a catalyst in forging new professional bonds and, manifested by the many emotional goodbyes on the final day, lifelong friendships as well, which can only be beneficial for the foram community in the future. ISF…highly recommended!
International School on Foraminifera
6th Course
Urbino, 4-18 June, 2013

Course Description. The 6th Course on Foraminifera is designed to provide an overview of the Taxonomy, Ecology, Biodiversity and Geological History of Benthic and Planktonic Foraminifera. This intensive course is intended for students interested in Micropalaeontology, Palaeoceanography, Palaeocology, and Climate History. The aim is to provide a primer on the study foraminifera and examples of how foraminifera can be used as paleoenvironmental and palaeoceanographical proxies. We review the current classification schemes of the foraminifera, discuss Ecology and Life History, review their usefulness for biostratigraphical applications, and use case studies to investigate the geological history of the group with lab sessions.

Course Structure. Three modular courses are planned: Larger Benthic Foraminifera (5-9 June), Smaller Benthic Foraminifera (10-14 June) and the Planktonic Foraminiferal Course (15-18 June).

Teaching Format. The course consists of lectures and practical classes covering the taxonomy, distribution, and ecology and paleoecology of foraminifera. Microscope lab sessions provide the opportunity for participants to learn the foraminiferal genera and species, and view Cretaceous to Neogene foraminiferal assemblages from petroleum exploration areas and ODP sites, as well as Quaternary and modern assemblages. Course materials include numerous reprints of classic papers, and the recent literature on the foraminifera, distributed on CD-ROM.

Requirements. The course is primarily intended for young researchers at the PhD or MSc stages of their careers, working with foraminifera or meiofauna. Applicants will primarily be selected on the basis of the relevance of the course for their current work.

Location. The course will be held in Urbino at the “Collegio Internazionale”. The “Collegio Internazionale” is in the historic center of Urbino.

How to make an application. Submitting the application form to fabrizio.frontalini@uniurb.it or by fax to (+39) 0722 304220.

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Dr. Antonino Briguglio, University of Vienna (Austria)
Applications are sought for a Ph.D. studentship position in Geology (Foraminiferal Micropaleontology) in the Earth Sciences Department at King Fahd University of Petroleum & Minerals in Dhahran, Saudi Arabia. The studentship is funded through a grant from Saudi Aramco. The successful candidate will assist in an international multidisciplinary effort to investigate benthic foraminiferal assemblages and other microfossils from the Miocene shallow-water carbonate sediments of eastern Saudi Arabia under the supervision of Mike Kaminski & Lamidi Babalola at KFUPM and Dr. Fawwaz Khaldi at Saudi Aramco. For additional information on the nature of the research project, please contact Dr. Mike Kaminski at kaminski@kfupm.edu.sa.

At KFUPM, all Ph.D. students receive free tuition and on-campus accommodation, highly subsidized health care, subsidized cafeteria meals, two one-way economy-class tickets to Dammam from point of origin, as well as a tax-free combined stipend that is currently in excess of $1,600 USD per month. Research costs including conference participation are covered by the research grant. Married students receive an upgraded housing allowance. The Ph.D. programme at KFUPM is a 4-year program, and all Ph.D. students are expected to attend postgraduate-level courses and perform light teaching & research duties or other assignments. A Masters degree in Geology, Paleobiology, or a related subject is required, and all candidates are required to submit GRE test results. Additionally, non-native English speakers must submit TOEFL/IELTS test results. Potential applicants are advised to first check the KFUPM Graduate Studies website under “PROSPECTIVE STUDENTS” [www.kfupm.edu.sa/gs] for additional eligibility requirements. KFUPM rules & regulations apply. Online applications for September entry will be accepted in February, 2013.
The regular meetings of German speaking ostracodologists are usually rather small conferences, taking place on a yearly basis to strengthen the network of participating researchers. Especially newcomers benefit from these events by personally meeting, and talking to, old stagers of ostracodology. In general, conferences of ostracodologists are interdisciplinary in that palaeontologists and biologists of a multitude of working fields come together to discuss their ongoing research on Ostracoda.

The 2012 German meeting, number 14 of its kind, added a new spice to the dish. Supported by funds of the German Research Foundation DFG, Finn Viehberg (Universität zu Köln) and Renate Matzke-Karasz (LMU München), together with the newly founded Society of Friends of the International Research Group on Ostracoda e.V., invited the entire ostracodologists’ community to join the International German Ostracodologists’ Meeting (IGOM) in Cologne.

Ultimate cause for the exceptional format was the 80th birthday of Eugen Karl Kempf, nestor of German ostracod science. Among ostracodologists, Prof. Kempf is renowned for the always close-to-complete relational database of ostracod literature, the Kempf Database Ostracoda (KDO), which was started in the early 1960s already. The multitude of spin-offs (books and CDs) are often referred to as the Kempf Index. Any information request sent to Eugen privately or via OSTRACON, the community’s discussion list, was and still is being replied by Eugen in his typical, competent, and

Fig. 1: Participants of IGOM in front of the venue, Castle Wahn (from 1750) near Cologne. Prof Eugen Karl Kempf in the center of front row.
all-embracing manner. Beside, the meanwhile well-established regular meeting of German speaking ostracodologists has been launched by Eugen in 1988 in Cologne.

Consequently, the motto of IGOM 2012 was „Fossil and Recent meet Kempf Database“. Following the special expertise of Prof. Kempf, the main topic of contributions was databases. Emphasis was given on problems around merging existing smaller regional databases on ostracod (palaeo)ecology from both sides of the Atlantic to create a bigger pool of information, eventually to be used for solving problems around climate changes in past, present and future.

Three of five plenar talks, presented by Brandon Curry (USA), Dave Horne (UK) and Alison Smith (USA) dealt with database issues, while two others, given by Koen Martens and Isa Schön (Belgium), informed us on models of speciation in ancient lakes and on the potential of up-to-date genetic investigations in ostracods.

Altogether 22 talks and 18 posters presented new insights into taxonomic, genetic and palaeo)ecologic studies in Ostracoda, clearly focusing on Quaternary to Recent faunas. Of the total of 64 participants, more than half came to Cologne from abroad.

Finn Viehberg and Burkhard Scharf (Bremen) led the conference field trip to the Laacher See, famous lake in the Eifel volcanic region, southwest of Cologne. Geological explanations as well as demonstration of limnological techniques and sediment core probing completed the conference by some practical exchanges. A guided visit to the almost 1000 year old Laach monastery nearby finally added a historical - and clearly meditative - aspect before participants said farewell.

IGOM 2012 was a big success – instructive and innovative, in a very inspiring atmosphere. Extended abstracts of conference contributions are to be found in the journal Kölner Forum für Geologie und Paläontologie (21/2012). A conference proceedings volume is scheduled for 2013 within the journal Crustaceana.

Many participants of IGOM expressed their hope that the positive and creative spirit of IGOM will be kept alive so that it can be further developed during the 17. International Symposium on Ostracoda in July 2013 in Rome.

Some links to mentioned conferences, societies and other …

17th ISO in July 2013 in Rome: iso17.unipr.it
Kempf Database Ostracoda: ostracoda-on.tripod.com
IRGO: www.irgo.uni-koeln.de
Society of Friends of IRGO: support-irgo.net
Ostracon, the discussion list: irgo.uni-koeln.de/OSTRACON)
Coccosphere replicas have been produced as single display models by various museums. On the other hand several artistic handicraft versions of coccoliths and coccospheres have also been produced and sold. However we feel that there is wider teaching/public engagement value to having such models, if they can be produced at a sensible price.

Since the 2004 INA10 Lisbon Conference we have been experimenting with producing coccoliths in such a way that they can build a coccosphere, as sort of 3D jigsaw. For this purpose two half-coccoliths (more or less corresponding to distal and proximal shields) were molded from SEM images of coccoliths of *Coccolithus pelagicus* at about $\times 10,000$ scale. From these plaster-of-Paris casts were produced from which counter-molds of silicone were extracted and then glued by the central area to form entire heterococcoliths. A 20-lith coccosphere was then composed and illuminated from inside by 2 series of green LEDs powered by a small solar panel (Fig. 1).

This first prototype was presented to Sherwood Wise at the moment he retired from the International Nannoplankton Association presidency and, he assures us that it is still operational and much valued (Fig. 2).

Due to the patience and interest of Nuno Theias, the plastic artist that created the original coccosphere, new more robust resin casts have been manufactured leading the way to the manual production of new specimens of silicone coccoliths. Silicone has two major advantages: (1) it allows enough flexibility to enable coccoliths to interlock their proximal and distal shields as in real coccospheres (Fig 3); and (2) conveys the idea of some transparency of the calcite shield that surrounds the coccolithophore, unlike the opacity suggested by SEM images.

Since chalk dust is mainly formed of these (Cretaceous) microscopic calcite structures these silicone replicas may interest a wider community of everyday teachers and not strictly professional experts on calcareous nanofossils. These replicas can stimulate discussion on the nature of organisms which make coccoliths, how they do this - and why?

To enable the production of new sets of coccoliths there is a need to guarantee in advance the production costs of at least two to three hundred specimens. This means that we need several colleagues or institutions to
be interested in this project. A first estimation of the costs indicate a value of 4 euros per single coccolith and between 60 and 80 euros per coccosphere (without LED illumination) depending of the amount of coccoliths (15 to 20) one uses to reconstruct it. To this total amount mail expenses must be added. Several nannofossil specialists have already agreed to pay for sets but we would like to open this to the wider microfossil community as well. If you are interested in buying a set of \( n \) coccoliths of *Coccolithus pelagicus* please contact me, Mario Cachao, by email (mcachao@fc.ul.pt).

Fig. 2. Offering the prototype to Sherwood Wise during the 10th INA Conference (Lisbon, 2004).

Fig. 3. Partial coccosphere reconstructions by coccolith interlocking.
The Cushman Foundation held its annual events during the Geological Society of America Meeting in Charlotte, North Carolina, USA, in early November 2012. During the business meeting of the Board of Directors on 4 November, new officers for 2013 were elected including President Susan Goldstein, Vice President Eduardo Koutsoukos, and Secretary-Treasurer Loren Petruny. New directors include Miriam Katz, Lizette Leon Rodriguez, and Loren Petruny. Many thanks to outgoing officers including President Thomas Dignes, Vice President David Scott, Secretary-Treasurer Jennifer Jett.

Paul Brenckle, who assumed the position of Editor of the Journal of Foraminiferal Research (JFR) in January 2012, reported that Volume 42 of JFR, published in January, April, July and October 2012, included 28 papers. During the past year, 48 new manuscripts were submitted, with 19 others in active review or revision. While papers focusing on the Quaternary currently dominate submissions and therefore papers published, the Editor and Board of Directors encourage submissions from across the spectrum of research dealing with Foraminifera and allied groups of organisms, including review articles.

Steve Culver “retired” from his multi-decadal, exemplary editorship of Special Publications. The latest, Special Publication 43 - The Last Global Extinction (Mid-Pleistocene) of Deepsea Benthic Foraminifera (Chrysalogoniidae, Ellipsoidinidae, Glandulonodosariidae, Plectofrondiculariidae, Pleurostomellidae, Stilostomellidae), Their Late Cretaceous-Cenozoic History and Taxonomy by B. W. Hayward, S. Kawagata, A. Sabaa, H. Grenfell, L. Van Kerckhoven, K. Johnson, and E. Thomas, is available for purchase on the Cushman Foundation website. Malcom Hart has assumed the position of Editor for Special Publications.

The Cushman Foundation, jointly with SEPM, TMS, the Gryzbowski Foundation, and the Paleontological Society, sponsored two related oral theme sessions: “Advances in Cenozoic Foraminiferal Biostratigraphy, Chemostratigraphy and Paleoecology” and “Advances in Foraminiferal Biostratigraphy, Chemostratigraphy, and Paleoecology”, the latter dealing with Paleozoic and Mesozoic biotas. The sessions, which included 25 presentations, were organized by Thomas Dignes. At a poster session organized by Miriam Katz and co-sponsored by the Cushman Foundation; Geochemical Society; Paleontological Society, entitled “Oceans and Climates through Earth History: From Proxy Reconstructions to Model Assessments”, 32 posters were presented.

At the Awards Reception on Tuesday evening, 6 November, a standing room only crowd acknowledged the awardees for 2012. The William V. Sliter Student Grant was awarded to Alessia Barchetta, Universita degli Studi di Milano, Italy, in support of her thesis “Planktonic foraminiferal biologic response to the Aptian Cretaceous Oceanic Event 1a.”

The Joseph A. Cushman Student Grant went to Natasha Mendez-Ferrer, University of South
Florida, USA, to support her study of “Bleaching and photochemical efficiency of the foraminifer Amphiastegina gibbosa.”

The Loeblich & Tappan Student Grant was awarded to Leigh Anne Riedman, University of California at Santa Barbara, USA, for her work on “Possible protistan biomineralization in the Neoproterozoic Era”.

Johanna M. Resig Foraminiferal Research Fellowship was awarded to Tali Babila, Rutgers - The State University of New Jersey, USA, to support completion of her PhD research entitled “Evaluating the paleoenvironmental signals at the Paleocene-Eocene Thermal Maximum using geochemical proxies in planktonic foraminifera”.

The W. Storrs Cole Memorial Research Award to an early or mid-career invertebrate micropaleontologist was presented to Eduardo Leorri, East Carolina University, USA.

Joseph A. Cushman Award for outstanding career achievements in foraminiferal research went to Khadyzhat M. Saidova, Professor, Shirshov Institute of Oceanology, Moscow, Russia. Unfortunately, she was not able to attend; Prof. Andrew Gooday, National Oceanography Centre, University of Southampton, UK, who was the 2010 recipient of the Cushman Award, served as citationist.

Co-sponsors of the Cushman Foundation Awards Reception included Applied Biostratigraphix, BHP Billiton, Chevron, Conoco Phillips, Energy Geoscience Institute, FUGRO, NAMS, The Palynological Society, RPS Energy, Saudi Aramco, Shell, Total Biostratigraphic Services, Inc., and anonymous donors. The Cushman Foundation Board of Directors thank these co-sponsors for joining in the recognition of the many contributions of Prof. Saidova to micropalaeontotology, as well as their interest in encouraging researchers at early stages of their careers.

Information on the various awards that will be presented in 2013, including eligibility and application deadlines, can be found at http://www.cushmanfoundation.org/awards/index.php. The deadline for applying for student awards is 1 March 2013. The William V. Sliter Student Grant, the J. A. Cushman Student Grant, and the Loeblich & Tappan Student Grant are all small grants to support student research projects. The Johanna M. Resig Foraminiferal Research Fellowship is awarded to an outstanding doctoral candidate committed to the advancement of foraminiferal research. Just as foraminiferal research is truly an international endeavor, the student awards have supported research and student researchers around the world. All interested graduate student are invited to apply.

Prof. Khadyzhat Saidova
NEW WEB SITE ON JOSEPH A. CUSHMAN
A biographical web site about Dr Joseph A. Cushman, the founding father of American micropaleontology, is now hosted at the Smithsonian Institution (http://paleobiology.si.edu/cushman/index.html). The site includes: (1) a biographical timeline including his early years, education and family, early career, activities and staff at his Sharon, Massachusetts laboratory; (2) his influence on the study of foraminifera and their classification, and the use of foraminifera in the search for economic deposits of oil; (3) select correspondence with a number of his collaborators and the Marland Oil Company; (4) a downloadable spreadsheet summarizing his personal correspondence included as part of the Smithsonian Cushman Collection; (5) photo galleries of family, students, collaborators and the Sharon, MA laboratory; (6) a video from film shot by Joseph Cushman during the late 1930s and early 1940s; and (7) audio files from Cushman’s grandchildren discussing their recollections of the Cushman family and activities at the Sharon Laboratory. A full bibliography of Cushman’s publications and several biographical sketches and memorials are also included.

Joseph Cushman with Fran Parker and Margaret Moore (illustrator) during their visit to the Berlin Natural History Museum in 1938.
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COSCINODISCUS LIMBATUS Ehrenberg, 1840


TYPE FIGURE: Not given. [Ehrenberg, 1854, Mikrogeologie. Leipzig: Leopold Voss, pl. 20/1, fig. 29a, b.]

TYPE DESCRIPTION: “C. testulae cellulis media sensim majoribus nec radiatis, margini radianion lineato, limbus striatum formans. Diam. 14." ["Platten-Mergel"].

TYPE LEVEL: Fossil [Ehrenberg, 1854, op. cit.: Cretaceous or Lower Tertiary, Islands, Greece.]

TYPE LOCALITY: Coast of Greece. [Ehrenberg, 1854, op. cit.: Zaeta, Ionian Islands, Greece.]


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