

# PALYNOS

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NEWSLETTER OF THE INTERNATIONAL FEDERATION OF PALYNOLOGICAL SOCIETIES

## IFPS VICE-PRESIDENTS

We are pleased to announce the results of the recent elections for the three new IFPS Vice-Presidents. Vice-Presidents are elected from among the councillors (excepting those councillors who prefer not to stand) by the incoming council. The Vice-Presidents serve a term of four years, until the closing plenary session of the next IPC (XIIth IPC, Bonn, 2008). The new IFPS Vice-Presidents are:-

### MARIE-PIERRE LEDRU

Marie-Pierre is one of the two Association de Palynologistes de Langue Francais (APLF) councillors. She is a Chargée de Recherche IRD in the Equipe Paléoenvironnements of the l'Institut des Sciences de l'Evolution of the University of Montpellier (France). She specializes in tropical and Quaternary palynology. A full biography of Marie-Pierre appeared in *PALYNOS* Vol. 23, No. 2 (December 2000).

### JAMES RIDING

Jim is one of the two American Association of Stratigraphic Palynologists (AASP) councillors. He is a palynologist/stratigrapher working for the British Geological Survey (BGS) based in Nottingham, England. His expertise is in the field of Mesozoic-Cenozoic palynology (particularly dinoflagellate cysts). A full biography of Jim

appeared in *PALYNOS* Vol. 28, No. 1 (June 2005).



*James Riding [e-mail: <j.riding@bgs.ac.uk>]*

### THOMAS SERVAIS

Thomas is one of the two Commission Internationale de Microflore du Paleozoique (CIMP) councillors. He is a Research Associate of the CNRS at the Department of Palaeozoic Palaeontology and Palaeobiogeography of the

University of Sciences and Technologies of Lille, France. His expertise is in the field of Palaeozoic palynology (particularly Ordovician acritarchs). A full biography of Thomas appeared in *PALYNOS* Vol. 23, No. 2 (December 2000).



*Thomas Servais [e-mail: <j.riding@bgs.ac.uk>]*

## **IFPS COUNCILLOR UPDATES**

### **ELENA BEZRUKOVA (RPC)**

**[replacing Valentina Mantsourova]**

Prof. Dr. Elena Bezrukova works at the Institute of Archaeology and Ethnography, Russian Academy of Sciences: Siberian Branch (SB RAS), where she is a Principal Researcher in the Laboratory of Archaeology and Palaeoecology. The institute is based in Novosibirsk (western Siberia), but the laboratory is situated in Irkutsk (eastern Siberia), where Elena lives. Since April 2005 she has also taken a half-position as Principal Researcher in the Laboratory of Continental Sedimentogenesis and Palaeoclimate in the Institute of Geochemistry of the SB RAS. In 1996 Elena was awarded a Ph.D. degree of Candidate of Geographical Sciences in Geomorphology and Evolutionary Geography. In 2000 she was awarded a second scientific degree: doctor of geographical sciences on geomorphology and evolutionary geography. Her second dissertation was devoted to Late Pleistocene and Holocene vegetation and climate change in the lake Baikal catchment area, based on well dated, high-resolution palynological

records from the deep drilling cores of Lake Baikal (southeastern Siberia) and lake Hovsgol (northern Mongolia). Elena is author of over 100 publications. Her main scientific interest is in palaeogeography, palaeoclimatology, and reconstruction of vegetation and climate during the Late Cenozoic in Central Asia based on the study of well-dated, high-resolution pollen records from long and short cores collected from the bottom sediments of great lakes (Baikal and Hovsgol), as well as smaller ones such as those located all over Siberia. She is also concerned with palynology and ecological reconstruction of geoaerchaeological sites in Mongolia, eastern and western Siberia. Elena has visited the USA (University of Colorado at Boulder; University of South Carolina at Columbia; USGS at Washington), Germany (Alfred Wegener Institut for Polar and Marine Research; Free University, Berlin), as well as Japan, China and Mongolia, where she has been collaborating with various international projects. She has also participated in numerous all-Russian scientific meetings.



*Elena Bezrukova [e-mail: <bezrukova@igc.irk.ru>]*

### **IAN HARDING (TMS)**

**[replacing Paul Dodsworth]**

Ian C. Harding is a palynologist / palaeoceanographer at the School of Ocean & Earth Science in the National Oceanography Centre, Southampton, England, a joint venture between the University of Southampton and the Natural Environment Research Council. He has over 20 years experience in Mesozoic-Cenozoic palynology, initially working on both onshore and offshore Mesozoic material, and more recently concentrating on integrated palaeoceanographic studies of mid and high northern latitude

Cenozoic palynology. From systematic and taxonomic studies, his work is now mainly concentrated in developing dinocysts and other palynological parameters as palaeoceanographic proxies by integrating them with other palaeothermometric proxies (pollen, clay minerals, grainsize IRD studies), palaeomagnetism and organic/inorganic geochemistry. He strives to maintain research into non-marine palynology and exceptional fossil preservation, as recent fieldwork and collaboration in China and a new PhD student working on Cretaceous Egyptian palynology will testify!



*Ian Harding [e-mail: [ich@noc.soton.ac.uk](mailto:ich@noc.soton.ac.uk)] with Valentina Markewicz*

Ian was awarded his Bachelor's degree in Geology by the University of Nottingham, little

knowing he would be following one of that university's alumni (the late Bill Sarjeant) into the field of palynology. A somewhat impromptu interview with Norman Hughes at the University of Cambridge led to Ph.D. research, that was awarded after some three years staring at an SEM screen examining Hauterivian-Aptian dinoflagellate cysts from N.W. Europe. Ian was appointed to a lectureship at Southampton in 1989, with a specific brief to develop the marine palynological component of a BP-funded Masters in Micropalaeontology, which during its operation, produced numerous students, many of whom are still in the hydrocarbons industry. He has supervised several Ph.D. students in subjects as diverse as Jurassic acritarchs of N.W. Europe, the PETM in the North Sea/Faeroes-Shetland Basin, and the Eocene of the Norwegian-Greenland Sea. A Senior Lecturer in Palaeontology at Southampton since 2001, Ian is also a Visiting Professor at Jilin University, Changchun, China. He has just taken over the Chair of the Palynology Group of The Micropalaeontological Society in the UK, and will represent the interests of the palynological members of that Society on the IFPS.

## **OTHER NEW COUNCILLORS**

A current list of IFPS councillors is provided overleaf. IFPS secretary-treasurer (Jiri Bek) and *PALYNOS* editor (Charles Wellman) should be informed of any errors or necessary changes.

The list of current IFPS councillors also includes information on website addresses for the various societies. Please inform the editor of changes to web addresses and information on new websites.

## Current IFPS Councillors

Society	Acronym [website]	Councillor
American Association of Stratigraphic Palynologists	AASP [ <a href="http://www.palynology.org">http://www.palynology.org</a> ]	Owen Davies
American Association of Stratigraphic Palynologists	AASP [ <a href="http://www.palynology.org">http://www.palynology.org</a> ]	Jim Riding
Asociacion de Palinologos de Lengua Espanol	APLE [ <a href="http://aple.usal.es">http://aple.usal.es</a> ]	Ramon Pérez i Obiol
Association de Palynologistes de Langue Français	APLF	Marie-Pierre Ledru
Association de Palynologistes de Langue Français	APLF	Nathalie Combourieu-Nebout
Arbeitskreis für Palaeobotanik und Palynologie	APP [ <a href="http://www.uni-muenster.de/geopalaeontologie/palaeo/palbot/apptext.htm">http://www.uni-muenster.de/geopalaeontologie/palaeo/palbot/apptext.htm</a> ]	Rainer Brocke
Canadian Association of Palynologists	CAP [ <a href="http://www.scirpus.ca/cap/cap.shtml">http://www.scirpus.ca/cap/cap.shtml</a> ]	Jean Nicolas Hass
Commission Internationale de Microflore du Paleozoique	CIMP [ <a href="http://www.shef.ac.uk/~cidmdp/">http://www.shef.ac.uk/~cidmdp/</a> ]	Ken Higgs
Commission Internationale de Microflore du Paleozoique	CIMP [ <a href="http://www.shef.ac.uk/~cidmdp/">http://www.shef.ac.uk/~cidmdp/</a> ]	Thomas Servais
Collegium Palynologicum Scandinavicum	CPS [ <a href="http://palyno.net">http://palyno.net</a> ]	Dagfinn Moe
Gruppo di Palinologia della Societa Botanica Italiana	GPSBI	Laura Sadori
International Association for Aerobiology	IAA [ <a href="http://www.isao.bo.cnr.it/aerobio/iaa/index.html">http://www.isao.bo.cnr.it/aerobio/iaa/index.html</a> ]	Carmen Galán
Linnean Society Palynology Specialist Group	LSPSG	Guy Harrington
Organisation of Czech and Slovak Palynologists	OCSP	Olda Fatka
Palynologisch Kring (Netherlands)	PK [ <a href="http://www.geo.vu.nl/~palkring">http://www.geo.vu.nl/~palkring</a> ]	Henry Hooghiemstra
Palynologists and Plant Micropalaeontologists of Belgium	PPMB	Philippe Steemans
Palynological Society of China	PSC	Huaicheng Zhu
Palynological Society of Japan	PSJ [ <a href="http://wwwsoc.nii.ac.jp/psj3/top.htm">http://wwwsoc.nii.ac.jp/psj3/top.htm</a> ]	Yuichi Takahashi
Palynological Society of Poland	PSP	Malgorzata Malkiewicz
Russian Palynological Commission	RPC	Olga Dzyuba
Russian Palynological Commission	RPC	Elena Bezrukova
The Micropalaeontological Society: Palynology section	TMS [ <a href="http://www.nhm.ac.uk/hosted_sites/tms/paly.htm">http://www.nhm.ac.uk/hosted_sites/tms/paly.htm</a> ]	Ian Harding
Turkish Committee for Palynology	TCP	Zutu Bati
International Union of Geological Societies	IUGS	Lucy Edwards
International Union of Biological Societies	IUBS	Jacques-Louis de Beaulieu
IFPS President – Thomas Litt		
IFPS Past President - Owen Davis		
IFPS Secretary-Treasurer - Jiri Bek		
IFPS Editor of PALYNOS – Charles Wellman		
<b>Societies on hold</b>		
Asociacion Latinoamericana de Paleobotanica y Palinologia	ALPP	
International Association for African Palynology	AIPA/IAAP	
Palynological and Palaeobotanical Association of Australia	PPAA	
Philippine Palynological Society	PPS	
Palaeobotanical Society, Lucknow	PSL	

## MEETINGS REPORTS

### “XVII International Botanical Congress”

Vienna, Austria

17-23 July 2005

by Michael S. Zavada (Providence College, USA)

This past summer (for those of us in the northern hemisphere) the XVII International Botanical Congress returned to Vienna after 100 years. Attending regional, national and international meetings is always exhilarating, and the International Botanical Congress is especially exciting because it brings plant scientists together from all botanical disciplines throughout the world. The Vienna meeting did not disappoint. The Congress size, the number of attendees, and range of presentations are a testament to the relevance and vibrancy of the plant sciences. Vienna also lived up to its reputation as an elegant venue.

The oral presentations were comprised primarily of arranged symposia with invited and keynote speakers. The one shortcoming I perceived was the lack of young scientists in these symposia. Future meetings should have a mechanism by which young scientists can be included in the arranged symposium. Unfortunately, most young scientists were relegated to the poster sessions. One of the exciting aspects of a meeting is having a room full of knowledgeable people and opinion that can bear upon a particular subject. The one on one interaction with a poster always seem to me to lack that sense of community that one feels with an oral presentation. An oral presentation really has an interactive, dynamic quality. One of a meetings best features is that scientists, regardless of their background or age, have an opportunity to supplement their specialized interests and education by attending sessions that may be pertinent, but peripheral to their own research, or just interesting. Meetings are not only to communicate the latest results to colleagues, but is a form of continuing education. Meetings should never only be the purview of the established scientist.

The size of the Congress and the number of presentations required good planning. The organizers arranged to have the Congress program posted to a searchable web site which made the planning process very efficient. My own interests include Evolution of the Cape Flora, Generalist Flowers, Wood Cell Wall-Structure and Function, Evolution of Fungal Symbioses ... and the numerous topical sessions on fossil and extant systematics and evolution which often gave me the feeling that I was missing something good elsewhere, or I was frozen in indecision of which talk to attend. The highlight of the meeting, however, was to see the role that palynology is playing in the systematics and evolution of so many different taxa and the numerous ways in which various applications of palynology are being used in different disciplines. Palynology is a diverse, but important discipline. I attended a number of different presentation on the evolution of a particular taxon based on molecular systematics which used palynological data to support many of their interpretations. One disturbing aspect of some presentations was the use of light microscopy (LM) and scanning electron microscopy (SEM) to elucidate systematically important pollen characters. The use of the SEM is technically less labor intensive than transmission electron microscopy (TEM), however, few investigators appeared to be trained or aware of the additional systematic and evolutionary information that the TEM reveals. Pollen wall ultrastructure holds many systematically important characteristics. It became apparent to me that a concerted effort by palynologists to create a pollen morphological database of fossil and extant pollen would be immediately useful to evolutionary systematists. It is clear from the wide use of pollen in a variety of disciplines that palynology has a proven and long term record of its usefulness to systematics and ecology.

This meeting did not disappoint with regard to interesting and provocative presentations. Good papers, like good art, elicit a good or bad emotional response in the listener. One paper that was particularly interesting was the paper by K. Bremer, a member of the APG Group, on *Angiosperm phylogeny-progress and prospects*. The APG Group is comprised of a variety of

systematists with very few geologically oriented individuals. He was proposing a new taxonomic system that would recognize 100 million year old clades. Although molecular clocks seem to be a vogue topic of discussion, their use and correlation with chronometric or chronostratic methods is not established, and as palaeopalynologists we take our time seriously. A major impediment to calibrating the molecular clock is the lack of fossil genomes to firmly establish the rate of base pair transformation. I am not expecting a significant recovery of fossil genomes that will permit the calibration and correlation of a taxon's molecular clock with the well established chronometric or chronostratic methods. To establish 100 million year old clades will require identification of the taxon in the fossil record based on morphology to establish the earliest known occurrence of a particular taxon (e.g. Crepet et al. 2004; Anderson et al. 2005). In my opinion, despite the stunning advances in molecular biology and its success with elucidating phylogenetic relationships of extant plants, to fully understand the evolutionary history of any taxon will require the continued input from plant morphology, paleobotany and palynology. If the Vienna meetings indicate anything, it is that anatomy and morphology will remain a significant component of plant systematics and evolution.

Whenever I leave meetings I am always "jazzed up" and inspired to get back to work. It is great knowing that for 10-11 months of the year you work in isolation, often among people who can not even spell palynology, to find out that our discipline is important to advancing the botanical sciences, and that we are truly a worldwide community in which everyone's contribution is essential to its development. I look forward to the next IBC, a winter event in July 2011, to be held in Melbourne, Australia.

Anderson, C.L., Bremer, K., and E.M. Friis. 2005. Dating phylogenetically basal eudicots using *rbcL* sequences and multiple fossil reference points. *Amer. J. Bot.*, 92: 1723-1736.

Crepet, W.L., K. C. Nixon, and M.A. Gandolfo, 2004. Fossil evidence and phylogeny: the age of major angiosperm clades based on mesofossil and macrofossil evidence from Cretaceous deposits. *Amer. J. Bot.*, 91 (10): 1666-1682.

## "38<sup>th</sup> AASP Annual Meeting"

St Louis, Missouri, USA

18-22 September 2005

by Owen K. Davis (University of Arizona, USA)

The thirty-eighth meeting of the American Association of Stratigraphic Palynologists was held September 18-21, 2005, at the Radisson Hotel in downtown St. Louis, Missouri. It was preceded by two field-trips, followed by a post-meeting field-trip, and included a mid-meeting excursion to the Missouri Botanical Gardens. The meeting, organized by Francisca Oboh-Ikuenobe, Paul Strother and Reed Wicander, was sponsored by the University of Missouri-Rolla, BP, ConocoPhillips, ExxonMobil, Statoil ASA, and the Missouri Botanical Garden. It included 66 participants from 11 countries.

The meeting featured symposia on "Palynology and Plant Phylogeny" (with a keynote address by IFPS Newsletter Editor Charles Wellman), "Paleozoic Microplankton (Phytopal)", "Pollen-Taphonomy"; and also included general sessions and poster sessions.



*Owen Davis receives the Distinguished Service Award from Thomas Demchuk (AASP treasurer)*

During the Business luncheon, awards were bestowed on Dr. David T. Pocknall, Prof. Owen K. Davis and Dr. David K. Goodman (Distinguished Service); Prof. Vaughn Bryant and Prof. Alfred Traverse (Honorary Membership); and Dr. Robin Helby (Scientific Excellence). The L.R. Wilson Best Student Paper Award was presented to Hernan Antolinez (University of Missouri-Rolla) for his paper entitled "Refinement of Early Paleogene Biostratigraphy

in West Africa Using Dinoflagellate Cysts from Nigeria and ODP Hole 959D (Leg 159)". The award for Best Poster was presented to Rebecca Tedford and John Wrenn (Louisiana State University) for their entry entitled "An investigation into Phytolith Types and Frequencies in Surface Soil Samples from Catahoula Lake, Louisiana."



*A view from the tour of the Missouri Botanical Gardens*

## **“XI Russian Palynological Conference”**

**Moscow, Russia**

**27 September-1 October 2005**

**by Elena Bezrukova (Russian Academy of Sciences: Siberian Branch)**

The XI<sup>th</sup> All Russian Palynological Conference was organized through the initiative of the Palynological Commission of Russia according to the resolution of the previous X<sup>th</sup> All Russian Palynological Conference. The conference was held at the Paleontological Institute of the Russian Academy of Sciences.

The conference was well attended by a diversity of participants from different countries representing a broad spectrum of age groups. The majority of the participants were from Russia with 143 delegates representing more than 18 different cities and regions. The organizations represented included the Russian Academy of Sciences, various other research institutions, and a number of State Ministries. There were also 22 delegates from the Union of the Independent States, the Mongolian People's Republic, as well

as from Iran and Israel. It is noteworthy that among the participants at least 50 were younger than 35 years of age.

The scientific programme of the conference was diverse with plenary sessions including: history of palynology; morphology of spores and pollen grains; Cenozoic palynology; Mesozoic palynology; Palaeozoic palynology; palaeogeography and archaeology, technical aspects of sample preparation and interpretation; macroalga and diatom flora; aeropalynology. The plenary sessions included 92 diverse presentations. They addressed a variety of aspects of palynology including biological development of pollen morphology, palaeogeography and detailed biostratigraphy and correlation of oil-bearing sediments, palaeoenvironmental ecology and archaeology.

The conference was well organized and the resulting science excellent. Moreover, the weather in Moscow during the conference was very favourable, and many of the delegates took advantage to enjoy excursions in the famous Moscow State University Botanic Garden, the Paleontological Museum at the Palaeontological Institute of the Russian Academy of Sciences (PIN RAS), and sightseeing tours around the wonderful sites of the Russian capital.



*Some of the delegates at the welcome party at the Palaeontological Institute of the Russian Academy of Sciences*

It is expected that the next XII<sup>th</sup> All Russian Palynological Conference will be held in September 2008 in another magnificent Russian city : St Petersburg (the so-called northern capital). All palynologists from all over the world are invited to join us at what is expected to be another fine conference.



*Palynologists outside of the Museum of Russian History in the Red Square area.*

## **“Palynology, Palaeolatitudes, Palaeoaltitudes”-joint meeting of APLF, LSPSG & TMS**

**Paris, France**

**3-7 October 2005**

**by Ian Harding (University of Southampton, UK)**

October in Paris attracted some 90 delegates to an extremely successful symposium held under the combined auspices of the Association de Palynologues de Langue Française (APLF), the Palynology Group of The Micropalaeontological Society (TMS) and the Linnean Society Palynology Specialist Group (LSPSG). Held in the Museum National d’Histoire Naturelle, the five days of formal talks and poster sessions represented a comprehensive stroll through most of the geological column and the wide diversity of palynological research.

The aspect of the meeting which was commented upon most positively by the majority of delegates was the series of 45-minute keynote lectures, of which there were two in each daily session.

Although too numerous to detail each keynote lecture, they ranged from broad topics of relevance to many delegates (e.g. *Insolation and orbital forcing as a driver of climate change*, delivered by Marie-France Loutre, and Gilles Ramstein’s *La stabilité des climats de la terre: perturbations naturelle et anthropique*), to those of more specialist nature (e.g. Jane Lewis’ *Culturing dinoflagellates: using living systems to understand the influence of temperature and salinity on cyst morphology* and Guy Harrington’s *Vegetation community responses to rapid warming at the Palaeocene-Eocene boundary*), and were of extremely high quality throughout.

The remainder of the meeting consisted of over forty 15-minute presentations on subjects ranging from the biodiversity of Palaeozoic acritarchs (e.g. Thomas Servais *et al.*, and Marco Vecoli) to latitudinal controls on Cretaceous dinoflagellates (Masure *et al.*), from palaeoclimatic interpretations of the last interglacial based on material from the western European margin to new techniques for epidemiological studies of allergenic respiratory diseases (Moreno-Grau *et al.*). An additional novelty was the provision of timeslots prior to the coffee breaks for short explanations of the poster presentations by their respective authors – which stimulated attendance in the upstairs poster room. It should be mentioned that many of the papers were ably delivered in English by French or North African speakers, and just as commendably in French by scientists from South America and Romania.

On Tuesday, prior to the APLF business meeting, there was a moving *hommage* paid to Annick Le Thomas by Madeline Harley and Hervé Sauquet – a worthy celebration of a long and distinguished career.

The prize for the best student talk was won by Eudes Thouand (Inst. des Sciences d’Evolution de Montpellier) for a virtuoso presentation which demonstrated the sophistications of new software for 3D imaging of confocal laser scanning microscopy, in being able to image internal apertural features of pollen grains and separating different wall layers. A visually striking and concise display on the palynology of the Furkaska Triassic/Jurassic section in the Western Capthians won the best poster prize for Karin Ruckweid of Martin-Luther-University (Halle-Wittenburg). The APLF bestowed their award for the best doctoral thesis to Stéphanie Desprat (Bordeaux).



Five students secured travel grants from the APLF and TMS: Eudes Thouand (Montpellier), Filipa Naughton (Bordeaux), Daniel Peyrot (Montpellier), Sébastien Joannin (Lyon) and Adèle Kuentz (Clermont-Ferrand).



*Annick Le Thomas at the Paris meeting*

The delightful icebreaker at the Bâtiment Esclançon of the Université Pierre et Marie Curie treated the delegates to the most elegant of canapés - before the lights went out on proceedings! Later, on the Wednesday evening, delegates assembled at the conference dinner, which was enjoyed at the sophisticated Restaurant des Ministères, a part Art Deco, part Art Nouveau confection.

The meeting was an undoubted success, bringing together speakers from across the globe, with many of the delegates expressing the view that our community should move towards more conferences organised under the umbrella of several different national palynological organisations. Our collective congratulations are extended to Edwige Masure and the rest of the Organising and Scientific committees, and also to Monique Troy for all of their hard work which resulted in such an enjoyable Parisian excursion.

## MEETING ANNOUNCEMENT

### XII<sup>th</sup> IPC--2008 Bonn, Germany

The XII<sup>th</sup> International Palynological Congress (IPC) Will be held in Bonn, Germany during Summer 2008 (exact timing to be specified).

The XII<sup>th</sup> IPC will be held in close conjunction with the next IOPC (International Organization of Palaeobotany Congress). The conferences will run back-to-back in the same location. It is anticipated that there will be some overlap with joint sessions on themes of interest for both palynologists and palaeobotanists. In addition, at least some of the excursions will be combined.

Bonn has an excellent infrastructure for holding conferences. It is proposed to hold all official events in the Maritim Hotel Bonn. This exclusive hotel is located directly at the edge of the former Government district. Bonn, the former capital of Germany, is a pleasant medium-sized university town with sufficient hotel accommodation in all price categories; a youth hostel is also available.

Bonn can be reached very easily:-

*by air:*

--Frankfurt International Airport (c. 1 hour by high speed train link to Bonn)

--Düsseldorf International Airport (c. 40 minutes by train to Bonn)

--Cologne-Bonn Airport (this airport is served by many low-budget air carriers)

*by train:*

Bonn has excellent railway connections. It is situated on an important international north-south line, and many other connections are possible from the nearby city of Cologne.

The public transport system (subway, tramways and buses) in the city is very well organized.

Bonn is Beethoven's birthplace, and has a very rich history and cultural heritage. The former capital of the Federal Republic of Germany is always worth a visit. The university city, situated on the romantic Rhine River, still preserves many traces of the Romans dating back 2000 years, from the Middle Ages, the Baroque and the period of rapid industrial expansion.

The city of Bonn and its surroundings offer excellent possibilities for a social programme for attending family members. The city of Cologne, with many other museums, is less than half an hour away.

Potential excursions include:

- Tertiary brown coal (e.g., Lower Rhine, eastern Germany)
- Tertiary Messel, Eckfeld
- Palaeobotany and Tertiary/Quaternary volcanism in the Eifel
- Jurassic in southern Germany
- Carboniferous and Lower Permian (e.g., Saar-Nahe, Thuringia, Saxony)
- Devonian (Rhenish Slate Mountains and adjacent regions)

See you in Bonn, Germany

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## **FUTURE MEETINGS**

### **3<sup>rd</sup> Joint Meeting of the Palynology and Silicofossil groups of The Micropalaeontological Society (TMS)**

**Utrecht, The Netherlands**

**9-10 March 2006**

The 3<sup>rd</sup> Joint Meeting of the Palynology and Silicofossil groups of TMS will be held in the Laboratory of Palaeobotany & Palynology (LPP) of Utrecht University in the Netherlands.

Building on the joint meeting at Cardiff University in 2004, the aim of the 3<sup>rd</sup> mini-

symposium is to bring together palynologists and silicofossil workers from academia and industry, for two days of presentations and discussions. The aim is to demonstrate the mutual benefit of integrating palynological (particularly dinocyst) and siliceous groups (diatoms, radiolarians, silicoflagellates) in palaeoenvironmental and biostratigraphical studies.

Although the meeting will be of most interest to palynologists and silicofossil workers, we welcome participation by any interested micropalaeontologists or palaeoceanographers.

We are now accepting offers of oral and poster presentations on any aspect of integrated palynological/siliceous micropalaeontology, novel techniques, and/or palaeoecological applications for one group that may be applicable to the other. There will be a special session on "reconstructing palaeoproductivity in lakes and oceans: current developments" with key note speakers Barrie Dale (Oslo) and Helen Bennion (UCL, UK).

The convenors of the meeting are Catherine Stickley (Norsk Polarinstitutt), Ian Harding (University of Southampton) and Henk Brinkhuis (Utrecht University) and the meeting is hosted by the LPP, The Palaeobotanical Palynological Society Utrecht (PPGU) and TNO-National Geological Survey.

Registration is online at the following website:  
[http://www.bio.uu.nl/~palaeo/Congressen/TMS2006/Intro\\_TMS2006.htm](http://www.bio.uu.nl/~palaeo/Congressen/TMS2006/Intro_TMS2006.htm)

Deadline for registration and abstract submission is 15 February 2006.

Further information is available from Marjolein Mullen (e-mail: [m.mullen@bio.uu.nl](mailto:m.mullen@bio.uu.nl); tel: +31 30 2535096; fax: +31 30 2535096).

### **Palaeobotany Specialist Group of the Linnean Society of London: Spring Meeting 2006: "A life of ferns and seed ferns"**

**Montpellier, France**

**6-8 April 2006**

In Spring 2006 the Linnean Society Palaeobotany Specialist Group (LSPSG) and the Organisation Francophone de Paléobotanique (OFP) will celebrate the recent emeritus status of Jean Galtier, member of both associations and ex-president of the International Organisation of Palaeobotany. This is the first joint venture between the LSPSG and the OFP, and we hope that specialist group members will be able to participate in this exciting meeting.

The meeting will take place in Montpellier, France and will focus on the origin and evolution of ferns and gymnosperms (particularly pteridosperms) via systematics, morphology, anatomy, development, ecology and function, from the Palaeozoic to the present.

The conference will consist of two days (6-7 April) of talks and posters (including a visit to the herbarium of the Botanical Institute) and a one day (8<sup>th</sup> April) excursion to the famous Late Carboniferous locality of Graissessac-one of Jean's sites of long-term interest. He and Carles martin-Closas will present their latest findings on the palaeogeographical reconstruction of this important Stephanian basin.

In order to help with planning and logistics it is important that those intending to attend e-mail or fax the organisers informing them of their intentions.

Meeting organizers: Brigitte Meyer-Berthaud (<[meyerberthaud@cirad.fr](mailto:meyerberthaud@cirad.fr)>) and Nick Rowe (<[nrowe@cirad.fr](mailto:nrowe@cirad.fr)>) (Montpellier, France).

## **“8<sup>th</sup> International Congress on Aerobiology”**

**Neuchâtel, Switzerland**

**21-25 August 2006**

The next International Association for Aerobiology (IAA) Quadriennial Congress, the 8<sup>th</sup> International Congress on Aerobiology (8<sup>th</sup> ICA), will be on the theme “Aerobiology: towards a comprehensive vision”. It will be held 21-25 August 2006 at Neuchâtel, Switzerland. The deadline for abstracts is 3 February 2006 and the deadline for early registration is 30 April 2006.

Further information and registration details are available on the following website:  
<[www.aerobiology.ch](http://www.aerobiology.ch)>.

Further information is also available from either:

Carmen Galan (IAA President & 8<sup>th</sup> ICA Secretary general)  
Universidad de Córdoba  
Campus Universitario de Rabanales  
E-14071 Córdoba  
España  
e-mail: <[bvlgasoc@uco.es](mailto:bvlgasoc@uco.es)> .

Bernard Clot (8<sup>th</sup> ICA Chairperson)  
MeteoSwiss  
Les Innuardes  
CH-1530 Payerne  
Switzerland  
e-mail: <[Bernard.clot@meteoswiss.ch](mailto:Bernard.clot@meteoswiss.ch)>



## **“CIMP General Meeting”**

**Prague, Czech republic**

**4-6 September 2006**

The next CIMP General Meeting will convene in Prague, the capital of the Czech republic. The meeting is open to all palynologists interested in any aspects of Palaeozoic palynology. The scientific program will include symposia, contributed talks, posters, poster sessions, and meetings of working groups, associated with workshops.

This meeting will be immediately followed, at the same venue, by the 7<sup>th</sup> European Palaeobotany-Palynology Conference (see below).

The following pre-conference and post-conference field trips are planned:-

3<sup>rd</sup> September 2005:- pre-conference fieldtrip to the Proterozoic to Ordovician of the Barrandian area.

6<sup>th</sup> September:-Post-conference fieldtrip to the Silurian and Devonian GSSPs of the Barrandian area.

Organizing committee:-

Jiri Bek (Institute of Geology, Academy of Sciences of the Czech Republic, Rozvojova 135, 165 00 Prague 6, Czech Republic. E-mail: <[mrbean@gli.csa.cz](mailto:mrbean@gli.csa.cz)>.

Jirina Daskova (Institute of Geology, Academy of Sciences of the Czech Republic, Rozvojova 135, 165 00 Prague 6, Czech Republic. E-mail: <[daskova@gli.csa.cz](mailto:daskova@gli.csa.cz)>.

Oldrich Fatka (Charles University Prague, Institute of Geology and Palaeontology, 128 43Prague 2, Czech republic. E-mail: <[fatka@natur.cuni.cz](mailto:fatka@natur.cuni.cz)>.

Further information and registration details are available on the following website: <<http://www.cimp2006.wz.cz>>.

Important dates are 10 April 2006 for early registration and 31 May 2006 for abstracts.



## **“7<sup>th</sup> European Palaeobotany-Palynology Conference”**

**Prague, Czech Republic**

**6-12 September 2006**

This meeting is open to all scientists interested in any aspect of the plant fossil record. It will be held in the faculty of Civil Engineering of the Czech Technical University in Prague. The scientific programme will include symposia, contributed papers, poster sessions, and meetings of working groups (associated with workshops). This conference will include meetings of the IOP, the NEMCLIME project, IGCP project 469. It will be immediately preceded, at the same venue, by the CIMP General Meeting (see above). The following pre-and post-meeting fieldtrips are planned:-

6<sup>th</sup> September: Lower Palaeozoic of the Barrandian area (O. Fatka).

12-13<sup>th</sup> September: Excursion 1 to the Carboniferous of Central Bohemia (J. Psenicka & M. Libertin); Excursion 2 to the Cretaceous of Central Bohemia (J. Kvacek); Excursion 3 to the Tertiary of NW Bohemia (J. Sakal & Z. Kvacek); Excursion 4 to the Czech Quaternary (P. Pokorny & V. Jankovska).

Further details and registration details are available at the following website: <<http://www.conference.cz/eppc2006/>>.

Important dates are 31 January 2006 for abstract submission, 15 April 2006 for early registration and 31 May 2006 for accommodation reservation.

Inquires to the general secretary Stanislav Oplustil (e-mail: <[eppc2006@nature.cuni.cz](mailto:eppc2006@nature.cuni.cz)>).



## **“XV International APLE Symposium of Palynology”**

**Benalmadena Costa, Malaga, Spain**

**18-21 September 2006**

Dear Colleagues:

As organisers of the XV International APLE Symposium of Palynology, we are glad to inform you that we are preparing a congress in which all kind of contributions related to Palynology will be welcome. We hope this event is a meeting point and discussion forum for all palynologists. Symposia include: Pollen and Spore Morphology; Aerobiology; Palaeopalynology; Melissopalynology; Pollen Biology.

We are making every effort to ensure that participants can enjoy a true holidays at the same time that they attend the scientific activities. Benalmadena is situated in the very centre of the "Costa del Sol" (southern Spain), one of the main tourist resorts in Europe, enjoyed by millions of tourist that visit us every year. September is still summer time and will allow you to enjoy the sun and beaches together with all kind of activities in the open air, offered by the numerous facilities that you will find in the locality, even if you are accompanied by children.

The hotel Alay we have chosen for the Symposium is situated at the very edge of the sea, by Puerto Marina, which is considered to be the most beautiful yacht port in the World. If we have sufficient accompanying persons we will organise a series of complementary activities such as trips to Gibraltar, Granada and the nearby village of Mijas, famous for its typical white houses, "burro-taxis" and handicraft shops. You

also will have the opportunity of visiting the Picasso Museum in Málaga.

Please, fill in the pre-registration form before January the 15th and we will keep you informed.

Further details and registration forms are available at the following website:

<http://www.15aple.uma.es>

Kind regards. We wait for you.

M. Mar Trigo  
Organising committee.

## **“2<sup>nd</sup> meeting of the CIMP Spores & Pollen Subcommittee”**

**Lisbon, Portugal**

**September 2007**

This meeting will involve 3 days of technical sessions at the Geological Survey in Lisbon, followed by a 2 day post-meeting field trip to the Pyrite Belt (palynostratigraphic contributions to understanding the Iberian Pyrite Belt).

The meeting will be organized by INETI (Portuguese Geological Survey) and the University of Algarve. For details and expressions of interest please contact Zélia Pereira (e-mail: [zelia.pereira@ineti.pt](mailto:zelia.pereira@ineti.pt)).

## **ANNOUNCEMENTS**

### **Fossil plant names : action at the Vienna IBC 2005 by Bill Chaloner (Geology Department, Royal Holloway, University of London, UK)**

The International Botanical Congress in Vienna this summer was preceded (as always) by a meeting of the Nomenclature Section of the Congress, which is held expressly to consider changes to the International Code of Botanical Nomenclature.

There were some 312 proposals for change (!); and these were debated and resolved over the five days of that sectional meeting. Although only about 400 people came to that part of the Congress, we were guided by a postal ballot which had been conducted in advance of the meeting. Of course the majority of these proposals had no bearing on palynology, but I here single out the few which are in various ways relevant for palynologists.

## MORPHOTAXA

At the last congress (in St. Louis) the term morphotaxon had been introduced into the Code, to try to sharpen up what was implicit in the old terminology of “organ genera”. The concept was set out in Art 1.2 of the Code : - “fossil taxa may be treated as morphotaxa. A morphotaxon is defined as a fossil taxon which, for nomenclatural purposes, comprises only the, parts, life history stages, or preservational states represented by the corresponding nomenclatural type”. This means of course that all palynological species and genera (spores, pollen or planktonic cysts) are automatically morphotaxa. Some palaeobotanists were not entirely happy with this, especially when the Preface to the Code (written by Werner Greuter) made reference to a “Morphofamily”. Some palaeobotanists felt that this was a meaningless concept – a family based solely on fossil leaves, for example, would have little value for most of us.

I had introduced two examples to illustrate how the morphotaxon should be applied (see Taxon 53: 2004, pp 850 – 851.), and these were approved by the Nomenclature Section. However, Judy Skog (secretary of the Committee for Fossil Plants) introduced a further amendment on behalf of that Committee. This read : - “A fossil taxon that is defined by more than a single part, or life history stage, or preservational state is not a morphotaxon”. This was approved by a vote of the Section. In other words, an author can, for example, base a species on two types of organ in organic connexion (say, cone and leafy shoot), and the name would clearly not be restricted to a single type of organ (as “morphotaxon” requires). Perhaps of more general application, a fossil family (such as the pteridosperm family Medullosaceae) may include genera based on stems, seeds, pollen and foliage and as such would clearly not be a “morphofamily”. It is

worth remarking here that the new “Vienna Code” which should appear early in 2006, will be put together by an Editorial Committee (which incidentally includes Judy Skog) who may “edit” the phraseology of any of the amendments that have been approved at the Congress – so long as they don’t alter the sense of the amendment !

## GEOLOGICAL AGE AS A DEFINING FEATURE OF A FOSSIL SPECIES

A rather different item relating to fossil plant nomenclature, of particular relevance to Palynologists, was also formally approved at the Nomenclature Section. Article 32 of the Code deals with the conditions under which a name of a plant (including fossils) is deemed validly published. These include (Art. 32.1 c): "In order to be validly published, a name of a taxon must be accompanied by a description or diagnosis ....etc.". All this is very familiar to palynologists.

The meaning of diagnosis is also well appreciated, and that is also set out in the following article, 32.2: “ A diagnosis of a taxon is a statement of that which in the opinion of its author distinguishes the taxon from others”. At the nomenclature section a proposal was made to add to Art. 32.1:- “For the purpose of Art. 32.1 .....properties such as economic, medicinal or culinary usage, cultural properties, cultivation techniques, and geographical origin are not to be considered features of a taxon”. [For a full account of the proposed revisions of this part of the Code see Taxon 54(1) Feb 2005, p. 230].

Before you move on quickly to something that seems more relevant to palynologists, it is worth explaining what this is aiming at. A species of banana was described in 1830 for which the diagnosis related only to the leaves (which was appropriate), but of which it was only said that they were used as a source of fibre, that the plant scarcely survived the winter, and that it came from the Ryuku Islands. In other words, all features which were attributes of the plant, but were not physically manifested in the plant material itself. This case is cited as an example of an account of a new species which does not satisfy the requirements of Art. 32.1c for a “description or diagnosis”

Perhaps the most far-reaching of these attributes which are “not to be regarded as features of a taxon” is the “geographical origin”. Of course

this is an important and relevant attribute of any taxon, but it cannot be regarded as the sole basis of difference from a previously described taxon. In other words, if a species is found in Europe which is morphologically (and by implication, genetically !) indistinguishable from a previously described American species, that difference in “geographical origin” is not itself, alone, to be regarded as a “feature which distinguishes the taxon from others”. (In such a case the obvious explanation, incidentally, would be of course that it was a casual introduction rather than a new species!).

Now for the palynology! For many of us, the distribution of a species in time is a palaeobiological counterpart to the spatial distribution for a biogeographer. This is what prompted me to propose a further amendment to that addition to Art. 32.1, once that had been passed. I proposed that there should be added after “geographical origin” ...”and geological age”. In other words, that a fossil plant morphotaxon cannot be regarded as being distinct from a previously described one simply in being of different age. That proposal was seconded by Else-Marie Friis, and (most important) had the support of Judy Skog, secretary of the Committee for Fossil Plants. This amendment was approved by the Nomenclature Section *nem. con.*

The most important implication of this change for palynologists is perhaps in connection with the features separating genera rather than species. We have long had to live with the absurdity of a number of spore morphogenera which are seemingly indistinguishable, but which are based on types of widely different ages. Cases in point are the genera *Leitriletes*, *Cyathidites* and *Deltoidospora*, all based on smooth, thin-walled subtriangular trilete spores. In each case the type is from a different geological period, but for most of us, those three are indistinguishable at generic level. The only basis for separating these three morphogenera is their age difference. The fact that a Devonian *Leitriletes* species will almost certainly have come from a plant very different from the parent plant of a Cretaceous *Deltoidospora* does not affect the issue. Any spore morphotaxon must be defined in terms of its morphology, not its putative parent plant (or its age!).

I believe this modification of the ICBN gives us an opportunity to reduce the number of

unnecessary spore genera, and offers a more consistent and logical basis for the nomenclature of these morphotaxa.

#### CONSERVATION OF THE NAME CLASSOPOLLIS

Al Traverse had proposed (Taxon 53(3) 2004) that the morphogeneric name *Classopollis* should be conserved against *Corollina* and *Circulina*. This proposal was approved without opposition (there were only four palaeobotanists in the section at the time !). This clears up an untidy situation in which those three names were being variously used by different palynologists, for what was generally acknowledged to be a single coherent group of Mesozoic pollen, all believed to be derived from the conifer family, the Cheirolepidiaceae.

Not unrelated to this was a proposal, by Al Traverse, Jan Jansonius and Doug Nichols, recommending the acceptance of an illustration as the type of a microfossil name, where the type specimen itself has perhaps either deteriorated beyond recognition or been lost (for details of this and related proposals, see Traverse et al. in Taxon 53, 2004, p.849.). This proposal had been rejected by the postal ballot with a 63% “no” vote. It was debated at some length (particularly as it was seen to be related to the general case for a figure being accepted as a type of a species name) and was rejected by the section with a yes vote of 151 to 330 no’s. This decision will no doubt be regretted by a number of palynologists, but perhaps not the majority.

#### THE LANGUAGES OF PALAEOBOTANY.

Most palynologists rejoice in the fact that for the description of new species of fossil plants to be validly published the description and diagnosis can be in English or Latin (jn contrast to extant plants, where a Latin description is obligatory).

A proposal from Redeuilh (Taxon 53, 2004, p. 220) was designed to delete the requirement of an English or Latin diagnosis for the valid publication of fossil plant names. This would have meant that new names of fossil palynological taxa could be validly published with descriptions in any language. This was overwhelmingly opposed by the Committee for Fossil Plants, and the postal vote went 151 against to 5 in favour. Needless to say, it was defeated by

the Nomenclature Section (who normally will not further discuss a motion if it has so little support on the postal ballot.).

So it seems that we can continue to enjoy the fact that English has (at least as far as fossil palynomorphs are concerned) superseded Latin as the global language of scientific communication.

#### ELECTRONIC PUBLICATION.

This was one of the issues that really got members of the Nomenclature Section excited – rivalled only by nationalistic fervour over the conservation of the name of *Acacia*. There had been a tedious and indecisive debate at the previous (St. Louis) Congress in 1999, over whether electronic publication (for example in a purely electronic, web-based journal), was an acceptable means of publishing new names of plants (living or fossil). This went unresolved, but a Special Committee on Electronic Publication was formed to report to the next Congress (i.e. Vienna) on the best course of action. Not surprisingly, they came up with a proposal that would have made publication in an "all electronic journal (i.e. a journal not formally issuing a paper version)" effective publication, in the language of the Code. They added the rider that "identical copies (electronic or both electronic and paper ) must be deposited in three libraries accessible to botanists generally". For a discussion of the pros and cons of this proposal, see the comments of McNeill and Turland in their synopsis of all the proposals given in *Taxon* 54(1) 2005. It was evident that the bulk of plant systematists, for a range of different reasons, were opposed to this and a similar alternative proposal. The postal vote was over 85% "no" for both alternatives, and the proposal was rejected.

However, a compromise proposal was drawn up by an ad hoc committee of 28 members (including myself) in Vienna. This stated that "we are not proposing that electronic publication by itself be approved today, given widespread concern still about aspects of availability and stability of electronic publishing. We believe that the following proposals recognise the reality of electronic publication and pave the way for it to be reconsidered at the next IBC, by which time we believe that the current concerns will have been resolved. The proposal centred on a new item to be added to Article 29, which included the phrase that "names may also be published under

the Code in a periodical ... that distributes a printed version of a work prior to or simultaneously with a matching electronic version". The hint of future changes was contained in a note to Article 29 "Until permanent archiving of electronic publications is assured, effective publication will continue to require distribution of printed matter". That compromise proposal was passed by the Section, and again a Special Committee on Electronic Publication was formed, to report to the next IBC (which is scheduled to be in Melbourne, Australia in 2011).

So electronic publication of new plant names goes on the shelf for a further six years ....!

### New website

I would like to announce the launch of a new web site "PalaeoWorks". "PalaeoWorks" is designed to be a portal to key resources being developed to facilitate palaeo- and archaeobotanical research in the Asia-Pacific region, such as "THE AUSTRALASIAN POLLEN AND SPORE ATLAS". Please take the time to visit the web site and forward this message to those who you think may be interested.

Comments and contributions welcome...

PalaeoWorks home page:  
<http://palaeoworks.anu.edu.au/index.html>

Contents include:-

\*Information for international and national students interested in studying palaeoecology and archaeobotany in the Department of Archaeology and Natural History at the ANU.  
(<http://palaeoworks.anu.edu.au/students.html>).

\*The INDO-PACIFIC POLLEN DATABASE contains information on over 600 pollen sites from a region extending from the Indian to the Pacific Ocean. The database is available as a FileMaker Pro 5 file and a bibliography of 645 references is also available as a PDF file.

\*The AUSTRALASIAN POLLEN AND SPORE ATLAS is a pollen image database under development at ANH that will provide web access to the pollen and spore collection held in the



department. A draft version of the database is accessible through this site.

\*Publications include online "Technical Reports" that are intended to support palaeoecological and archaeobotanical research in the Asia-Pacific and Australian region (e.g. Hope, G.S. (2004) Indo-Pacific Pollen Database, Reference List. PalaeoWorks Technical Report 2. p.30).

\*Individual collections of pollen floras from sites investigated by members of PalaeoWorks are being developed and will be freely available. (e.g. A New Caledonia Pollen Flora contains around 360 pollen and spore images from the flora of New Caledonia).

\*Up-to-date information on the groups current research activities, news and publications.

\*Price list for analytical services provided to Australian and international clients.

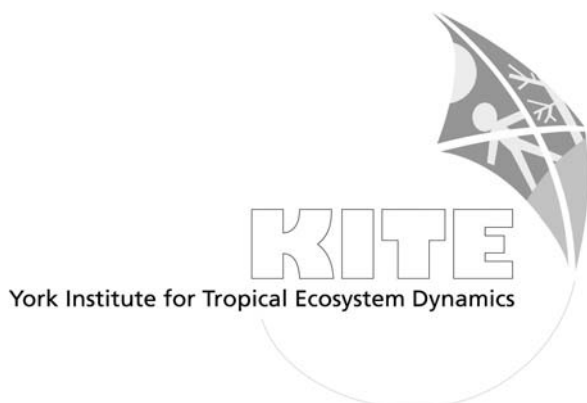
Marie-Pierre Ledru

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34 394, Montpellier, France

tel + 33 4 67 14 90 32

<http://www.mpl.ird.fr/hydrologie/greatice>

## Research opportunities and positions available



Research opportunities and positions are available at the York Institute for Tropical Ecosystem Dynamics :

\*Early Stage Researcher Project 5 : modelling the past, present and future of Eastern Arc Mountain ecosystems

\*Experienced Researcher Position : developing methods to link past present and future reconstructions from the Eastern Arc Mountains

York Institute for Tropical Ecosystem Dynamics (KITE), a Marie Curie Excellence Centre located in the Environment Department of the University of York, UK, will explore relationships between ecosystem dynamics, climate change, and human impacts along the Eastern Arc Mountains. KITE will use the mountains as a model system to understand the patterns and processes on which the evolution of mountain biodiversity is based. Some of the research is site-specific and highly focused on producing new pollen-based records of vegetation change whereas other aspects are more generic to global change research.

Salaries will be commensurate with age and qualifications but will be in the region of 30,000 euros per annum for the ESR and 48,000 euros per annum for the experienced researcher. Both positions are pensionable and will be offered as three-year employment contracts with the University of York. The posts are open to EU and non-EU nationals.

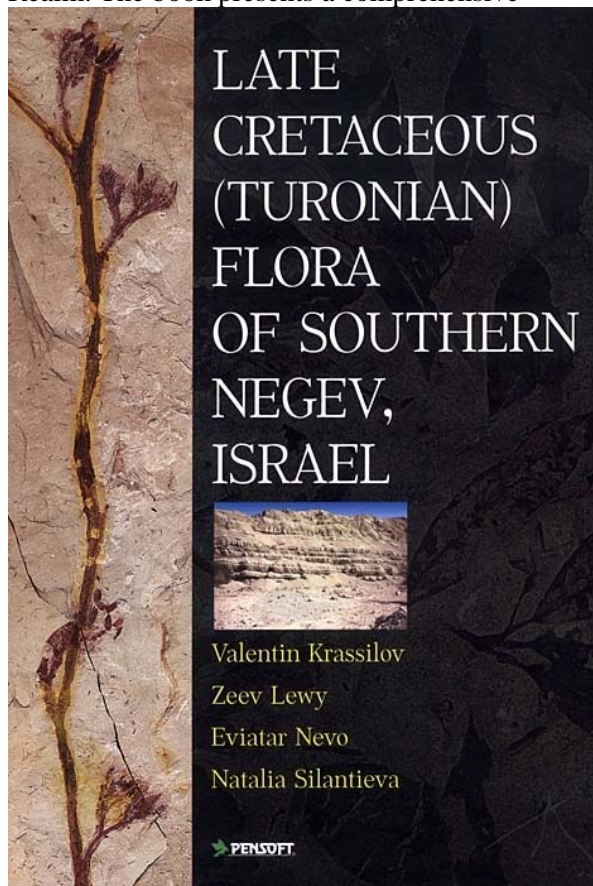
Start date is from 1st September 2006 with application by CV and statement of interest with names and address of three referees. Further information on the project and other opportunities within KITE are available from :-

Dr Rob Marchant, Environment Department,  
University of York, Heslington, York YO10  
5DD, UK

## NEW BOOKS

### **Late Cretaceous (Turonian) Flora of Southern Negev, Israel by V. Krassilov, Z. Lewy, E. Nevo & N. Silantieva**

Paleofloristic discoveries cast new light on plant evolution. They are also pertinent to tectonic, paleogeographic and paleoclimatic reconstructions. As a result of extensive collecting in the Arava Valley south of the Dead Sea, the Late Cretaceous (Turonian) flora of southern Negev currently appears to be the most representative for this age in the Gondwana Realm. The book presents a comprehensive



analysis of a regional palaeoflora from several points of view. Starting with a detailed description of the work previously done on the site, the authors extend their analyses to the tectonic and palaeogeographic framework and the regional settings of the localities. Further analyses of the palaeocommunities – mangroves, marshes, palm growth, aquatic and inland vegetation – are based on a detailed taxonomic study of the plant fossils. Most of the 46 species described in the

book are new to botanical systematics; more than half of them are assigned to new genera. Systematic descriptions are illustrated by more than 120 color and 30 black/white photos. Detailed descriptions of species and communities recognized in the Turonian of southern Negev may serve as the basis for further studies in morphological evolution of flowering plants, as well as in climatic and palaeogeographic reconstructions. The book is addressed to specialists in the fields of plant phylogeny, paleoecology and paleoclimatology. It is indispensable for any library collecting surveys on these subjects.

Ordering at [orders@pensoft.net](mailto:orders@pensoft.net) or fax +359-2-9674071 or phone +359-2-9674070

Online ordering at:

[www.pensoft.net/notes/12377.stm](http://www.pensoft.net/notes/12377.stm)

Cover, table of contents and sample pages at:

<http://www.pensoft.net/newreleases/12377.html>

“Late Cretaceous (Turonian) flora of Southern Negev, Israel” was published in May 2005 by Pensoft Publishers, Sofia-Moscow. 252 pages, 165 x 240 mm, fully illustrated with 120 colour and 30 b/w plates. Price EURO 67.90. ISBN 9546422290.

### **Atlas of pollen grains of the Asteraceae: Palynomorphology and sporoderm development by N. R. Meyer-Melikyan, I. Yu. Bovina, Ya. V. Kosenko, S. V. Polevova, E. E. Severova, M. V. Tekleva, P. I. Tokarev.**

The pollen morphology, sculpture and ultrastructure of more than 200 species of the Asteraceae are described. Data on sporoderm development of some Asteraceae, with an emphasis on the tetrad and post-tetrad stages, are included. All descriptions are richly illustrated with numerous images from optical, scanning and transmission electron microscopes.

The voluminous family Asteraceae is peculiar in its sporoderm structure: a very thick pollen wall of complicated architecture, sculptured with spines that vary in size and shape, but always possess inner cavities. The exine of each member of this family has an outer columellae, underlain with a foot layer varying from a weakly developed to reticulate and to nearly homogeneous layer. The inner ectexine of different members of the family shows an even higher degree of morphological diversity (in some members the inner ectexine so reduced as to completely disappear). The above morphological characteristics allow the authors to describe sculptural and ultrastructural types of pollen grains occurring in the Asteraceae. The main types of sculpture are echinate, verrucate, echinolphate, and lophate; and the principal types of ultrastructure are cavate and non-cavate with a double-columellate layer. The ultrastructural types are subdivided into subtypes: with/without a foot layer underlying the cavity, with bifurcated/branched inner columellae, and with well developed/weakly developed inner columellae. All palynomorphological characters revealed underscore the significance of pollen morphology for plant taxonomy and make the Asteraceae a promising object of palynotaxonomical studies.

The atlas has been prepared by the palynomorphologists of Lomonosov Moscow State University (MSU). It is a result of more than ten years of work of the team under the leadership of Professor Nonna R. Meyer-Melikian (1937—2003), who sadly did not see this book published. The other authors are Irina Bovina (MSU, [irene\\_bovina@mail.ru](mailto:irene_bovina@mail.ru)), Yana Kosenko (Botanical Garden of MSU, [kosenko@herba.msu.ru](mailto:kosenko@herba.msu.ru)), Svetlana Polevova (MSU, [polevova@herba.msu.ru](mailto:polevova@herba.msu.ru)), Elena Severova (MSU, [elena.severova@mail.ru](mailto:elena.severova@mail.ru) or [severova@herba.msu.ru](mailto:severova@herba.msu.ru)), Maria Tekleva (current affiliation: Paleontological Institute of the Russian Academy of Sciences, [tekleva@mail.ru](mailto:tekleva@mail.ru)),

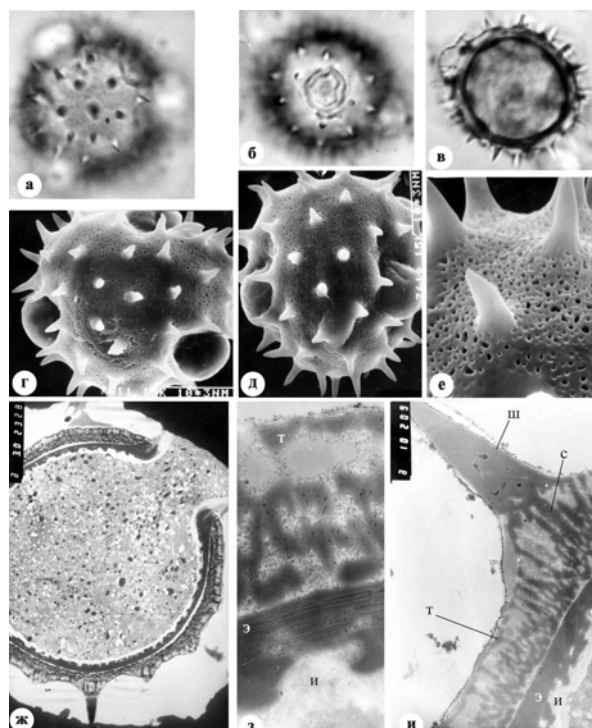


Fig. 1. Pollen grains of *Tussilago farfara* L. The general morphology, sculpture, and ultrastructure.

and Petr Tokarev (MSU).

“Atlas of pollen grains of the Asteraceae: Palynomorphology and sporoderm development” was published in X by Moscow: Tovarischestvo nauchnyh izdaniy KMK. 236 pages, 253 x 163 mm, fully illustrated with 294 b/w plates. ISBN 5-87317-180-7.

**Contact person:** Dr. Elena Severova, Department of Higher Plants, Biological Faculty, Lomonosov Moscow State University, Vorobievii Gorii, 11992 Moscow, Russia. e-mail: [severova@herba.msu.ru](mailto:severova@herba.msu.ru)

**PALYNOS** (ISSN 0256-1670) is published bi-annually (June and December) and is distributed electronically to all IFPS Councillors for local distribution to individual members of their **International Federation of Palynological Societies (IFPS)** affiliate society. The newsletter is also posted on the IFPS website (see below).

We welcome news items, reports on society activities, reviews etc. and members should forward these to the Editor:

**Charles Wellman**

*c.wellman@sheffield.ac.uk*

Please don't forget to visit our IFPS web site at:

**<http://geo.arizona.edu/palynology/ifps.html>**