

PALYNOS

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NEWSLETTER OF THE INTERNATIONAL FEDERATION OF PALYNOLOGICAL SOCIETIES

IFPS VICE-PRESIDENTS

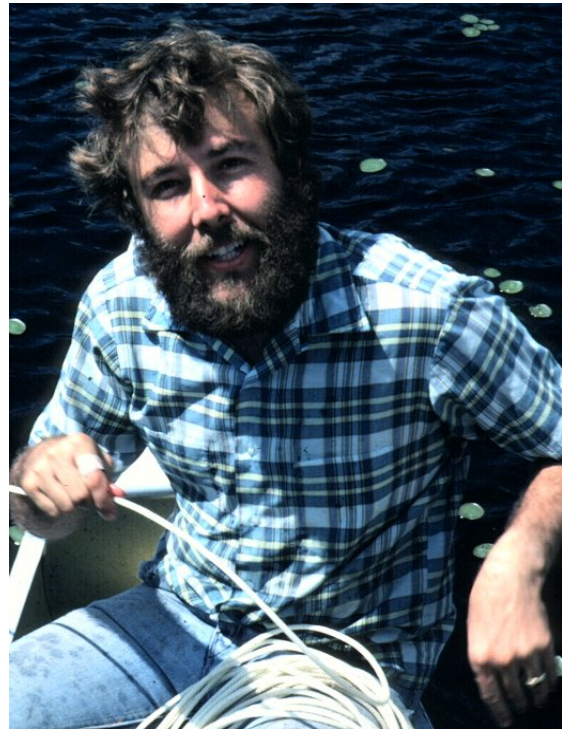
The IFPS is currently in the process of selecting the three new Vice-Presidents. The Vice-Presidents serve a term of four years, until the closing plenary session of the next IPC (XIIIth IPC, Bonn, 2008). Vice-Presidents are elected from among the councillors (excepting those councillors who prefer not to stand) by the incoming council. The appointment of the three Vice-Presidents of IFPS will be announced in the next issue of *PALYNOS* (December 2005).

IFPS COUNCILLOR UPDATES

OWEN KENT DAVIS (AASP)

[replacing Fransisca Oboh-Ikuenobe]

Owen is a Professor of Geology at the University of Arizona. With James Riding, British Geological Survey, Owen represents the 500 members of the American Association of Stratigraphic Palynologists. Founded in 1967, AASP publishes the journal *Palynology* and four newsletters annually. It hosts yearly meetings throughout North America and Europe, and distributes various scholarships and awards fostering the science of palynology. Further details are available on the AASP website <<http://www.palynology.org/>>.



Owen Davis [e-mail : <palynolo@geo.arizona.edu>]

Owen's research emphasis is the palynology of non-aquatic sediments of arid lands, particularly the "extra palynomorphs."

He has taught classes in palynology annually since joining the faculty of the University of Arizona in 1982. Owen has written 245 palynological publications, including six edited volumes, plus 107 abstracts. He has organized 20 local, national and international meetings, and has supervised 38 completed theses and dissertations.

He serves on the editorial boards of *Review of Palaeobotany and Palynology*, *Radiocarbon* and the *Journal of the Arizona-Nevada Academy of Science*. He served as President of the Arizona-Nevada Academy of Science in 2000-2001, and as Managing Editor of *Palynology* from 2000-2004. He served as Secretary Treasurer of IFPS from 1992-1996 and as President from 1996-2000. Currently, he is the webmaster for the Arizona-Nevada Academy of Science, the American Association of Stratigraphic Palynologists and IFPS. This year (2005) he will receive the Distinguished Service Award of the American Association of Stratigraphic Palynologists.

JAMES B. RIDING (AASP)

[replacing Reed Wicander]



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

James B. Riding is a palynologist/stratigrapher with the British Geological Survey based in Nottingham, England. He has over 20 years experience in Mesozoic-Cenozoic palynology. In the 1980s he worked mainly on the the Mesozoic palynology of onshore and offshore UK,

principally the North Sea. His current interests have diversified to include the palynology of Europe, Australasia, Antarctica, west Africa, the Americas, Russia and the Middle East, paleoenvironmental palynology, floral provinces, the morphology, systematics and taxonomy of dinoflagellate cysts and palynological preparation techniques. Jim studied geology at the University of Leicester, before pursuing a long standing interest in palynology by studying the famous MSc course at the University of Sheffield. Jim left Sheffield for the BGS, where he received a PhD from the University of Sheffield in 1986 for a thesis on the Jurassic dinoflagellate cyst floras of northern and eastern England. The British Antarctic Survey have used Jim as a consultant palynologist and he visited the Antarctic Peninsula for a fieldwork tour during the Austral Summer of 1989. He recently undertook a year secondment to Geoscience Australia in Canberra, Australia, where he worked on the taxonomy of Australian Jurassic dinoflagellate cysts with Robin Helby and Clinton Foster. The work emanating from this was published in 2001 as Memoir 24 of the Association of Australasian Palaeontologists. Jim was awarded a DSc by the University of Leicester in early 2003. He served as President of AASP in 2003.

RAMON PÉREZ I OBIOL (APLE)

[replacing Ana Teresa Romero]



Ramon Pérez I Obiol [e-mail: <ramon.perez@uab.es>]

Ramon Pérez i Obiol works at the laboratory of Palynology in the Department of "Biología

Animal, Vegetal i Ecologia” of the Autonomous University of Barcelona (Spain). Since 1992 he has been an associated professor of Botany. He completed his PhD in 1987 on Quaternary palaeopalynology from the northeastern Iberian Peninsula. He has participated in five EU projects concerning palaeoclimatology, palynology and landscape management of semi-arid zones. Some of these projects, for example “*Characterization of the aridity processes on Mediterranean Europe: protection and management guidelines*”, have produced new and applicable results as well as remarkable papers. He has published more than 40 papers related to these subjects. At present his work is focused on Holocene palaeopalynology of Mediterranean areas (including the Balearic Islands) and on Lateglacial and Holocene palynology of lakes in the Pyrenees Mountains. He has been involved in international coordination tasks such as the Advisory Board of the European Pollen Database (EPD).

NATHALIE COMBOURIEU NEBOUT (APLF)



Nathalie Combourieu-Nebout [e-mail : nathalie.nebout@lsce.cnrs-gif.fr]

Nathalie works as a researcher for the CNRS in France. She was awarded a PhD in 1987 from the University of Montpellier (France) and

entered the CNRS in 1988. She has been the vice president of APLF since 2001.

Nathalie’s scientific research interests include the palynology of marine sediments from Pliocene to recent times. She attempts to reconstruct changes in vegetation and understand their relationship with climatic variations by studying pollen assemblages in marine sediments (cores and outcrops) collected in the temperate zones of the Northern Hemisphere. She is particularly interested in rapid climatic events and their consequences on the vegetation of the Northern Hemisphere (and especially on the Mediterranean paleoenvironments).

Nathalie may be contacted at LSCE (Laboratoire des Sciences du Climat et de l’Environnement), UMR CNRS/CEA 1572, Domaine du CNRS, Bat. 12, Avenue de la Terrasse, 91198 Gif sur Yvette cedex, France.
(tel : 33 (0)1 69824369 fax : 33 (0)1 69823568).

CAMEN GALÁN (IAA)

Carmen Galán is a Professor at the University of Córdoba, Spain. She teaches courses in botany, aerobiology and biological techniques. Carmen was awarded a degree on Biological Sciences in 1982 and a doctorate in Botany in 1987. In 1988 she was awarded the Doctorate Special Award from the University of Córdoba. Since 2003 she has been co-ordinator of the Interdepartmental Doctorate Programme (Applied Sciences) which involves seven Departments of the University of Córdoba. She has been Head of the Department of Plant Biology since 2002, and as such is also a member of the University Council. Carmen has been a member of the Regional Environmental Council since 2003 and the Regional Biodiversity Council (as representative of the Andalusia Universities) since 2005. She has co-ordinated the Spanish Aerobiology network (REA) and Andalusia Aerobiology Network (RAA) since 1998. She is currently the Spanish Responsible of the European Aeroallergen Network/European Pollen Information (EAN/EPI) and member of Administrative Council European Pollen Information Ltd. She has been President of the IFPS affiliated society, the International Association for Aerobiology (IAA), since 2002.



Carmen Galán [e-mail: <bvlgasoc@uco.es>]

Nowadays, Carmen is co-editor (with Paolo Mandrioli) of the international journal *Aerobiologia*. Her research interest is focussed on basic and applied aerobiology and plant phenology. She has been involved in 22 research projects: 3 at regional level; 13 at national level; and 4 at international level. In these projects her research group has worked on palynology, on the development and working of an Aerobiological Network, and on the application of aerobiology to other subjects (such as allergy, agronomy and environment).

YUICHI TAKAHASI (PSJ)

Please note a change of details for Yuichi Takahashi, the IFPS councillor for the Palynological Society of Japan (PSJ). His new e-mail address is : <ytak4810@lime.plala.or.jp>.



OTHER NEW COUNCILLORS

There have been a number of other changes to council, and an updated 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 has been emended to include 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 [http://www.palynology.org]	Owen Davies
American Association of Stratigraphic Palynologists	AASP [http://www.palynology.org]	Jim Riding
Asociacion de Palinologos de Lengua Espanol	APLE [http://aple.usal.es]	Ramon Pérez i Obiol
Association de Palynologistes de Langue Francais	APLF	Marie-Pierre Ledru
Association de Palynologistes de Langue Francais	APLF	Nathalie Combourieu-Nebout
Arbeitskreis für Palaeobotanik und Palynologie	APP [http://www.uni-muenster.de/geopalaeontologie/palaeo/palbot/apptext.htm]	Rainer Brocke
Canadian Association of Palynologists	CAP [http://www.scirpus.ca/cap/cap.shtml]	Jean Nicolas Hass
Commission Internationale de Microflore du Paleozoique	CIMP [http://www.shef.ac.uk/~cidmdp/]	Ken Higgs
Commission Internationale de Microflore du Paleozoique	CIMP [http://www.shef.ac.uk/~cidmdp/]	Thomas Servais
Collegium Palynologicum Scandinavicum	CPS [http://palyno.net]	Dagfinn Moe
Gruppo di Palinologia della Societa Botanica Italiana	GPSBI	Laura Sadori
International Association for Aerobiology	IAA [http://www.isao.bo.cnr.it/aerobio/iaa/index.html]	Carmen Galán
Linnean Society Palynology Specialist Group	LSPSG	Guy Harrington
Organisation of Czech and Slovak Palynologists	OCSP	Olda Fatka
Palynologisch Kring (Netherlands)	PK [http://www.geo.vu.nl/~palkring]	Henry Hooghiemstra
Palynologists and Plant Micropalaeontologists of Belgium	PPMB	Philippe Steemans
Palynological Society of China	PSC	Huaicheng Zhu
Palynological Society of Japan	PSJ [http://wwwsoc.nii.ac.jp/psj3/top.htm]	Yuichi Takahashi
Palynological Society of Poland	PSP	Malgorzata Malkiewicz
Russian Palynological Commission	RPC	Olga Dzyuba
Russian Palynological Commission	RPC	Valentina Mantsourova
The Micropalaeontological Society: Palynology section	TMS [http://www.nhm.ac.uk/hosted_sites/tms/paly.htm]	Paul Dodsworth
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		
Societies on hold		
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

The 2nd PhytoPal Workshop

Lille, France

16th December 2004

by Gary Mullins (University of Leicester)

The 2nd phytoPal workshop was held in at the Univerité des Sciences et Technologies de Lille, France, Sciences de la Terre, on the 16th December 2004. The aim of this workshop was to bring together Palaeozoic phytoplankton researchers to discuss their current projects and results in a friendly and informal atmosphere. The presentations, which were followed by plenty of debate, ranged from broad overviews of the distribution of Palaeozoic phytoplankton to more detailed discussions on specific taxonomic problems, or on the distribution of phytoplankton in particular regions.



Delegates (from left to right) : Marco Vecoli, Dick Aldridge, Ken Dorning, Emmanuelle Javaux, Thomas Servais, Cristiana Ribecai, Stewart Molyneux, Malgorzata Moczydlowska-Vidal, Paul Strother, Elena Raevskaya and Gary Mullins.

Marco Vecoli and Thomas Servais started the programme with two talks on Ordovician phytoplankton. Marco discussed the relationship between phytoplankton and their consumers with respect to the 'Great Ordovician Biodiversification Event', while Thomas gave an overview of Ordovician phytoplankton diversity. Diversity was also the topic of the next four talks presented by Ken Dorning, Craig Harvey and Ken Dorning, Gary Mullins, and Paul Strother. These

talks discussed the relationships between fossil abundance and palaeoproductivity, provided an overview of Late Precambrian-Triassic phytoplankton diversity, evolution and extinction, based on new curves derived from the PhytoPal database, and also described the possible links between atmospheric and sea water chemistry and phytoplankton diversity.

During the afternoon the talks largely concentrated on particular taxonomic problems or discussed the fossil record in particular regions. Stewart Molyneux reviewed the Early Cambrian phytoplankton of the NW Highlands of Scotland, while Malgosia Moczydlowska-Vidal discussed the Cambrian *Skiagia* plexus and re-examined their taxonomy and worldwide distribution. Similarly, Cristiana Ribecai discussed the Late Cambrian genus *Lusatia* and reviewed its classification, biostratigraphical importance and palaeobiogeographical distribution. Recent studies on Middle and Late Cambrian acritarchs of the Inner Clastic Belt of Laurentia were presented by Paul Strother, who noted that fossil assemblages there are typified by cryptospores, leiospheres, small (8 to 20 µm) acanthomorphic acritarchs and 'problematical' microfossils. Elena Raevskaya and Ken Dorning then presented two talks on the phytoplankton of the Middle-Late Ordovician of Siberia and the Silurian of Shropshire, England, respectively. One further talk was presented by Emmanuelle Javaux, who gave a compact review of evolution in the early biosphere. Emmanuelle further discussed the combination of light microscopy, SEM, TEM and spectroscopic analyses that are being used to elucidate aspects of the biological affinity and evolution of Precambrian microfossils.

The next phytoPal workshop will coincide with the 38th AASP meeting in St. Louis (19-21 September 2005). Further details about the phytoPal project can be found at the following website :

<<http://www.le.ac.uk/geology/glm2/phytopal.html>>.

Geological problem solving with microfossils

Houston, Texas, USA

6th-11th March 2005

by Merrell Miller (Saudi Aramco)

The Geologic Problem Solving with Microfossils conference was held at Rice University, Houston, Texas, March 6-11, 2005. This international conference was dedicated to the memory of Dr Garry D. Jones, who had worked as a micropaleontologist for UNOCAL. Garry's vision and drive laid the ground work for this conference sponsored by the North American Micropaleontology Section of SEPM and AASP among other organizations. Tom Demchuk (ConocoPhillips) and the conference organizing committee are congratulated for a successful conference. This meeting brought together 150 micropaleontologists and palynologists. There were 100 oral presentations and posters – over a fourth included palynology. Scientists from 21 countries participated.

This meeting was a show case for the utility of applied micropaleontology and palynology. Several themes were present in many presentations and posters. They included improving biostratigraphic resolution, dealing with reworking, advances in paleoecological interpretation of assemblages, dealing with minimal data sets, the integration of biostratigraphy and paleoecology in sequence stratigraphy, and movement to calibrate biostratigraphic data and sequence stratigraphy with the 2004 Geologic Time Scale. Biosteering, application of fuzzy logic to biostratigraphy, a new graphic correlation program, solving structural problem with biostratigraphy, among others is a sampling of the scope of techniques reviewed. Ideas and interpretations sparked lively discussions during the poster sessions and breaks. A SEPM Special Publication is planned.

The social highlight of the meeting was an evening at the Houston Museum of Natural Science. The Plenary dinner was in the Paleontology Hall surrounded by the impressive dinosaur, mammal and invertebrate collections. Desert followed in the Cullen Hall of Gems and Minerals. The evening concluded with a memorial to Garry Jones' life and accomplishments. The evenings' speaker was NASA astronaut Lt Colonel Mike Fincke who recounted his experiences working on the International Space Station.

The meeting concluded with a splendidly organized two day field trip to classical Gulf Coast chalk exposures in the Austin area and to the K-T boundary sections near the Brazos River.

Field trip participants were treated to the best Texas springtime weather for wading streams and hiking in pastures. Jason Lundquist and Jeff Stein ably led participants to sections and discussed foram and palynological biostratigraphy.



Jeff Goodall surveys a well-exposed chalk section in Austin.

XVIth biennial SASQUE meeting,

Bloemfontein, South Africa

30th March – 2nd April 2005

by Anne-Marie Lézine (APD co-ordinator)



The XVIth SASQUA (South African association for Quaternary studies) meeting was held in Bloemfontein, South Africa. SASQUA is affiliated to INQUA, and in response to the joint initiative of Professors Louis Scott (Free State University) and Mike Meadows (Cape Town University), both African (APD) and European (EPD) pollen database delegates attended the meeting.

Unfortunately, the APD and EPD have evolved rather independently during the last few decades. However, thanks to the global pollen database (GPD) initiative and the IGBP PAGES PEP III core project, strong relationships have begun to develop between them. This led to a first joint meeting held in 2002 in Casablanca, Morocco. Since this first meeting, an impressive effort has been made in data collection. Thus, the APD manager has identified more than 500 fossil pollen sites in Africa (of which 51 are located in the northern, Mediterranean, area). Because the northern, Mediterranean, flora of North Africa is

closely related to the southern European one, these new data are archived with the EPD. Access to these two databases will soon be facilitated through a web interface developed by MEDIAS France in Toulouse (as soon as taxonomic problems are resolved).

To date SASQUA meetings have been exclusively dedicated to research carried out in the southern part of Africa. The contribution of several palynologists involved in either APD or EPD was an opportunity to obtain an overview of palaeoenvironmental and paleoclimatic research carried out over the entire continent. Among the 50 oral presentations and posters, 26 were from palynologists from seven African countries (Ethiopia, Gabon, Kenya, Morocco, South Africa, Tanzania, Uganda), three European countries (France, Germany, UK) and two Asian countries (Lebanon and China).

The oral and poster presentations covered a wide range of scientific fields, from the late Pliocene (L. Dupont & E. Perez) to the last millennium (A. Ekblom; L. Gillson), including aspects of modelling and calibration (C. Hely, S. Brewer, L. Bremond & J. Guiot; J. Watrin, A.-M. Lézine, K. Gajewski & A. Vincens; K.I. Duffin). One of the main scientific topics covered was the last glacial-postglacial transition and the Holocene period. There were two main foci: climate reconstruction and vegetation dynamics. Palynologists have shown that the use of different archives (hyrax middens [M. Seliane, M. Meadows & B. Chase; G. Gil Romera, E. Marais, G. Brook & G. Carrion]; marine sediments [A.-M. Lézine & J.-P. Cazet; L. Dupont, H. Behling, F. Marret & J. Scourse; F. Marret & INTIMATE co-workers]; CED [Gray Brewer, M. Meadows & J. Lee Thorp]; lakes [I. Ssemmanda & A. Vincens; J. Thackeray & L. Scott; R. Cheddadi, M. Taieb, E. Ortu & B. Damnati; K. Huang & R. Cheddadi; H. Lamb, C. Bates, M. Umer, V. Coombes, M. Marshall, S. Davies & E. Dejen; M. Umer, J.-J. Tiercelin, E. Gibert, D. Hureau, A.-M. Lézine, H. Lamb & R. Bonnefille] and swamps [D. Nash, M. Meadows & V. Culliver; C. Mumbi, H. Hooghiemstra, R. Marchant & M. Wooller; T. Partridge, L. Scott, E. Norström, B. Theko, J. Risbek, L. Rossouw & B. Smith; A. Ngomanda, D. Joly & J. Maley; L. Hajar & R. Cheddadi]) is remarkably suitable for accurate and reliable past environmental reconstructions.

The APD and EPD state of the art was thoroughly presented by their data coordinators (A.-M. Lézine & R. Cheddadi). In addition the APD manager (D. Lewden) presented her up to date list of African pollen sites and related references. Several examples of scientific uses of both modern and fossil pollen data were presented. Notably, the EPD has now attained such accurate spatial resolution that it is possible to produce maps of tree migrational routes through time, which are crucial for understanding modern plant diversity. In Africa, special attention is paid to taxonomic issues (owing to the highly diverse pollen flora and pollen-plant-climate relationships) for better reconstruction of the past.

Through this joint meeting, APD and EPD complies with the objectives of the IGBP-PAGES core project PEPIII to make available to the scientific community a powerful tool for better access to international scientific research dealing with global change and biodiversity, in relation to resource management. In this context, the recent policies of the WDC-A in Boulder, Colorado, with respect to palaeodata management, were discussed at the meeting.

The participation of palynologists from outside of South Africa was made possible thanks to funds from the French and the South African national research agencies (CNRS and NRF), the French committee for Geological Sciences (CNFG), the European Union (through a former INCO-DC contract) and PAGES. MEDIAS France and Professor Louis Scott kindly managed (with their well known know-how and friendship) the venue for all of the APD and EPD delegates. In addition, thanks to Professors Louis Scott and Mike Meadows and their colleagues for organizing an exceptional post-congress excursion through the Kalahari-Highveld grassland, the succulent Karoo, the Fimbos and the littoral temperate rain forest, allowing the participants to visit numerous pollen sites (Erfkroon, Colesberg, Blydefontein, Groenvlei, Knysna, Cango Cave).



We truly and warmly thank our sponsors and colleagues who made this meeting and the following excursion successful and fruitful, allowing brilliant young scientists to reveal so much hope for African research.

Annual meeting of the LSSPG

London, UK

27th April 2005

by Alan Hemsley (Cardiff University)

It was with surprise that last year I learned of the imminent retirement of Madeline Harley. An e-mail arrived from Carol Furness mooted the idea of a celebratory ‘Palynology Day’ and enquiring whether I would participate. Naturally I said yes, as did many others. The result was an impressive indulgence in current aspects of palynology, many linked directly or tenuously to Madeline’s career (so far).



Madeline (right) with Anne-Marie Lézine (left) and Annick Le Thomas (centre) during their tenure as IFPS officers.

Having raced my research student from Paddington by alternative methods of London transport, I arrived with plenty of time at the Linnean Society rooms at Burlington House. I visit London far too infrequently these days and so this punctual arrival provided for the many greetings involved with the encounter of old friends, and indeed there were many. Carol informed me she was expecting around fifty and she was proved reliably accurate – a ringing endorsement of Madeline’s place in palynology and in the affection of its proponents.

Proceedings began, as one might hope, by the director of Madeline’s home institution, the Royal Botanic Gardens, Kew. Sir Peter Crane

introduced the day with a ‘reverse’ look at the palaeopalynological evidence for the origin and evolution of eudicots. I liked this approach as it appears more realistic than speculative.

Concentration on factual evidence continued with co-worker Else-Marie Friis who presented additional data on the emergence of early angiosperms. This was a contribution which masked the difficulty with which such results are achieved with the apparent perfection of the fossils and the clarity of the micrographs. As always, I was most impressed. Then a surprise. Mike Zavada, who has accompanied Madeline on expeditionary work in Madagascar, launched into an interesting presentation with his observation that any subject is never more than six steps removed from palynology. I suspect he is correct but one must have a mind like that of Mike in order to perceive some of the more obscure connections. Indeed, Mike’s talk seemed to have an obscure connection to palynology being principally pedological. However, it was none-the-less fascinating, documenting observations which led to the conclusion that the current sparse vegetational cover of the central plateaux is probably less the result of human activity than has been proposed. I hope he publishes this study as I’d like to use it as a case study for students.

A coffee break in the elegant library was followed by an offering from myself, Han van Konijnenburg – van Cittert and Evelyn Kustatscher. In best Linnean Society specialist group tradition we presented the ‘what on Earth is that?’ contribution relating details of a new Triassic ‘strobilus’ from the Dolomites that contains simple trilete spores with a well preserved but unassignable ultrastructure. Next came Bill Chaloner with a subject dear to my heart. He revived debate on the strange origin of distal germination in gymnosperms and in particular, prepollen polarity. I gather that some of his comments related to the Palaeobotany Specialist Group meeting that had occurred the previous day where palynology (naturally) had formed an important part. Completing the Royal Holloway resident and alumni trio, Margaret Collinson offered a fascinating consideration of what appears to be a highly disjunct palaeodistribution of the water fern *Regnellidium*. Magnificent illustrations supported an intricate and mysterious plot worthy of any detective novel, only lacking (thankfully) a murder victim! Lunch followed but was somewhat lessened by the refurbishment of the usual venue. Migrating

across the road, a number of us indulged in a variety of imaginative sandwiches. What *is* wrong with fishfingers between two slices of bread?

Returning to Burlington House, we were entertained in a very relaxed manner by Madeline's recent co-author, Rob Kessler. We are all aware of the peculiar beauty of pollen under the SEM but here was an artists' perspective with tinted images tastefully tuned to the colours of the source flowers. The associated coffee-table book offers enormous potential for enthusing students with palynology and, regardless of the dubious validity of coloured SEM images, will prove a useful tome. Michael Hesse cheerfully launched us back into the hard science with a consideration of pollen grains that are somewhat lacking in firm material. The absence of a sporopollenin ectexine in certain groups of the Araceae was assessed and explained in terms of ecological adaptation. Continuing the cladistic feel, Roland van der Ham explained pollen diversity and its relationship to systematics in the genus *Zehneria* (*sensu lato* I gather). I like to encounter groups of plants that are new to me but there were a lot here, indeed, the only genus I had previously encountered was the outgroup. I clearly need to brush up on tropical cucumber genera!

Following a break for tea, we returned to a Kew colleague, Hannah Banks, who generated another artistic display of floral and pollen diversity in the form of the Caesalpinoideae, and in particular, the tetrad arrangement of *Duparquetia*. (Another genus of which I had never heard – I'm definitely slacking.) A splendid talk with some excellent Royal Institution Christmas lecture-style models. Not to be outdone, Maria Suárez-Cervera exhibited a highly appealing sneezing sunflower animation which rather stole the show from the stimulating consideration of protein allergens in the pollen of the Zygophyllaceae and other families. I think my nose was itching by the end of this thoroughly entertaining contribution. To conclude, back to Kew again, and to Simon Owens (with colleagues) who explained the importance of understanding breeding systems with special reference to brassicas. There seems to be something rather odd about ending with a group as mundane as cabbages but there was certainly nothing mundane about the presentation. It even included *Arabidopsis*, and we've *all* heard of that.

The day ended with a social gathering in the library lubricated with an assortment of beverages and a wide selection of crunchy nibbles including some colourful vegetable crisps (chips for those across the pond). Having pre-booked a train ticket and seat, my departure was necessitated before the termination of this final phase but I did manage to congratulate Madeline on her distinguished career so far. There will be more. And finally thank you Carol for organizing a mind-stretching meeting and providing all of us with an opportunity to pay tribute to a dear friend.

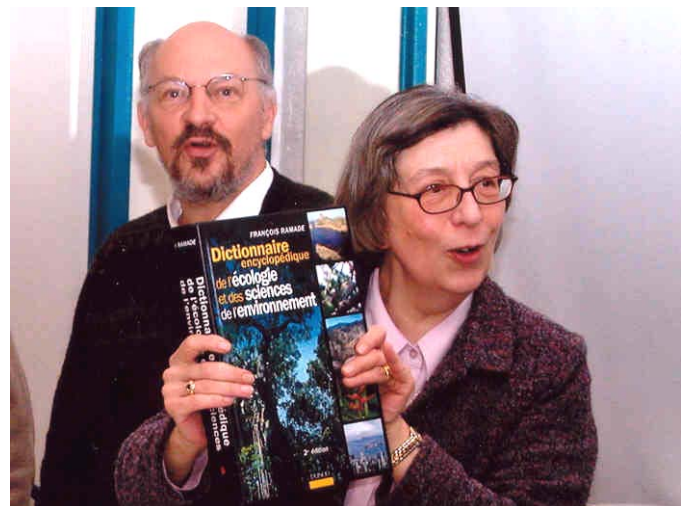
Annual meeting of the PPBM

Liège, Belgium

11th May 2005

by Philippe Steemans (Chairman PPBM)

The annual meeting of the PPBM was held at the University of Liège (Belgium), Department of Geology, on the 11th May 2005. This meeting was focused on the Palaeobotany and Palynology of the Precambrian and the Palaeozoic. It was dedicated to Professor Murial Fairon-Demaret, "Chargé de cours", and to Professor Michel Vanguetaine, "Chargé de cours" and head of the "Paléobotanique-Paléopalynologie – Micropaléontologie" Laboratory of the University of Liège, upon their retirement in October 2005.



Professors Michel Vanguetaine and Murial Fairon-Demaret at the recent PPBM meeting celebrating their impending retirement.

For this occasion we invited two colleagues from St Petersburg, Russia: Lena Raevskaya and Lena Golubkova who have recently moved to the Precambrian Research Institute of the Russian Academy of Sciences. This small meeting was a great success with colleagues travelling from France, Italy, Argentina and the UK. The sixteen presentations were as follows:

C. Prestianni: Early diversification of seed and seed-like structures.

P. Gerrienne, B. Meyer-Berthaud & M.

Fairon-Demaret: The significance of *Runcaria* (Middle Devonian, Belgium) for seed plant evolution.

M. Fairon-Demaret & C. Hartkopf-Froeder:

Les mésofossiles végétaux du sondage de Refrath 1 (Famennien Supérieur - Bergisch Gladbach-Paffrath Syncline, Allemagne).

M. Strel & C. Hartkopf-Froeder: Late

Famennian correlation by miospores between the Refrath 1 Borehole (Bergisch Gladbach-Paffrath Syncline, Germany) and the reference section of Chanxhe (Dinant Syncline, Belgium)

L. François, A. Grard & Y. Goddérís:

Modelling atmospheric CO₂ changes at geological timescales

E. Javaux & C.P. Marshall: Tracking the record of early life.

E. Golubkova: Main changes in microfossil communities through the Upper Proterozoic of Russia.

E. Raevskaya: Diversity and distribution of Cambrian acritarchs from Siberian and East-European Platforms: a generalized scheme.

M. Vanguetaine & P.M. Brück: A Middle Cambrian age for the Ediacara fauna from the Booley Bay Formation, County Wexford, Ireland: new acritarch data and its implications.

C. Ribecai, G. Bagnoli, F. Mazzarini & G.

Musumeci: Late Cambrian paleontological evidence in the Arburese area, SW Sardinia (Italy).

J. Vanmeirhaeghe, J. Yans, A. Prétat, J.

Verniers: New evidence for the Hirnantian (Upper Ordovician) in Belgium? an integrated isotopical, biostratigraphical and sedimentological approach.

J. Verniers, T. Vandenbroucke & A.T. Nielsen: Chitinozoans biozonation at the Ordovician - Silurian transition in Dob's Linn (Scotland, U.K.) and Lönstorp (Scania, Sweden).

B. Wauthoz: How acritarchs provide the first unambiguous correlation of the 83W-421 Kortrijk

(Sint-Antonius) and 83W-44 Kortrijk (Lust) boreholes (early Silurian, Belgium).

M. Vecoli, Lehnert, O. & T. Servais: The role of marine microphytoplankton in the "Great Ordovician Biodiversification Event".

C. Rubinstein: Ordovician to Lower Silurian palynomorphs from the Sierras Subandinas (Subandean Ranges), north-west Argentina.

P. Breuer, A. Al-Ghazi, J. Filatoff, K.T. Higgs, P. Stemans, C.H. Wellman: Stratigraphic palynology of Devonian boreholes from Northern Saudi Arabia.

The authors prepared extended abstracts of their contributions. A volume of these was distributed to the participants during the meeting, and they will soon be published in *NoteBooks on Geology* (website: <<http://paleopolis.rediris.es/cg/uk-index.html>>).

A very convivial dinner was held close to the university: in a famous pub where it is possible to taste more than 400 different kinds of beer (just to prove that Belgium beers are among the most diverse and famous in the world ...).

The next meeting is planned for next spring. Further details will be sent to interested colleagues and can be requested from Philippe Steemans <p.steemans@ulg.ac.be>.

MEETING ANNOUNCEMENT

XIIth IPC--2008 Bonn, Germany

XII International Palynological Congress
Bonn, Germany, September 2008 (exact timing to be specified).

The next 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 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, whereas 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 shows 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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Hindenburgplatz 57
48143 Münster, Germany
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FUTURE MEETINGS

“XVII International Botanical Congress”

Vienna, Austria

17-23 July 2005

The XVII International Botanical Congress will soon take place in Vienna, Austria. It includes numerous symposia of interest to palynologists. Further details, including a list of symposia, may be found at the following website:
<<http://www.ibc2005.ac.at>>

“38th AASP Annual Meeting”

St Louis, Missouri, USA

18-22 September 2005

The 38th Annual Meeting of the AASP will be held on 18-22 September 2005 at the Raddisson Hotel and Suites Downtown in St. Louis, Missouri, USA. A block of single and multiple-occupancy rooms has been reserved for participants at the meeting (AASP members should ask for special rates).

There will be two pre-meeting fieldtrips (one will be a two-day trip to regional clay pits, led by David Dilcher of Florida Museum of Natural History, and there will also be a post-meeting fieldtrip). The technical programme will include two symposia and general sessions. One symposium is on “Palynology and plant phylogeny” with two keynote speakers: Charles Wellman (University of Sheffield) on early land

plants and Mike Zavada (Providence College) on the angiosperms. The other symposium is on “Palaeozoic microplankton (Phytopal)”. Abstracts for either symposium are encouraged and will be included in the appropriate symposium session. General technical sessions will be interspersed between the symposia.

Francisca Oboh-Ikuenobe (University of Missouri-Rolla) is in charge of logistics for the meeting, while Reed Wicander (Central Michigan University) and Paul Strother (Boston College) are co-ordinating the technical programme. Abstracts to be submitted between 15 July to 15 August 2005. Information about registration, technical sessions, abstract submission deadline, field trips, social events, and a tour of the Missouri Botanical Gardens can be found on the following website:

<<http://www.palynology.org/meetings.htm>>.

Please direct questions about logistics to Francisca Oboh-Ikuenobe <ikuenobe@umr.edu>, and questions about the technical programme to Reed Wicander <reed.wicander@cmich.edu> and/or Paul Strother <strother@bc.edu>.

“XI Russian Palynological Conference”

Moscow, Russia

September 2005

The XI Russian palynological conference will be held during September 2005 at the Paleontological Institute of the Russian Academy of Sciences (Moscow). Presentations on all branches of modern palynology are welcome. The working language is Russian, but English presentations are acceptable.

For further details please contact: Natalia Zavialova (E-mail : <zavial@mail.ru>). More information will be available at the following website: <www.paleo.ru>.

“Palynology, Palaeolatitudes, Palaeoaltitudes: land/ocean distribution patterns controlling climate and biodiversity” a joint meeting of APLF, LSPSG & TMS (palynology group)

Paris, France

3-7 October 2005

There will be a joint meeting of the APLF, LSPSG and TMS (palynology group) to be held at the Auditorium de la Grande Galerie, Muséum National d’Histoire Naturelle, Paris, France on 3rd-7th October 2005. The theme of the meeting is “Palynology, Palaeolatitudes, Palaeoaltitudes: land/ocean distribution patterns controlling climate and biodiversity”.



Further details, including the second circular, are available on the following website: <http://www.nhm.ac.uk/hosted_sites/tms/>.

“New discoveries in old collections” Palaeobotany Specialist Group of the Linnean Society of London: Autumn Meeting 2005

London, UK

26 October 2005

This one-day meeting will be held at the Linnean Society, Burlington House, Piccadilly, London, UK. It will focus on the continuing nature of discovery in historically collected fossil plant collections. Potential speakers are asked to contact the meeting organizer, Dr Chris Cleal, directly by e-mail <chris.cleal@nmgw.ac.uk> (National Museums and Galleries of Wales).

“The Micropalaeontological Society (TMS) AGM”

London, UK

November 2005

Details of the forthcoming AGM of the TMS will be made available on the TMS website (see p.5 for the web address). This year the AGM will include invited talks from all sections of the TMS (including palynology).

The 1st Euro-Mediterranean Symposium of Plant Biology and Environment

Annaba, Algeria

28-30 November 2005

The 1st Euro-Mediterranean Symposium of Plant Biology will be held from 28th-30th November 2005 at the University of Annaba in Algeria. The meeting is organized around four themes: one of which is palynology (Aeropalynology: pollen and allergy; Melissopalynology: honey quality; Palaeopalynology: Mediterranean basin palaeopalynology). Further details are available on the following website: <<http://www.univ-annaba.org/cem-bve2005.pdf>>.

Palaeobotany Specialist Group of the Linnean Society of London: Spring Meeting 2006: “A life of ferns and seed ferns”

Montpellier, France

July 2006

This is the initial announcement for a meeting to be held in Montpellier, France, the city where Jean Galtier has spent his academic life. Topics will be on topics of special interest to Jean, specifically the early radiations of ferns and seed ferns. The meeting will (hopefully) be accompanied by an excursion to visit famous fossil plant localities in the south of France. Meeting organizers: Brigitte Meyer-Berthaud

(<meyerberthaud@cirad.fr>) and Nick

Rowe (<nrowe@cirad.fr>) (Montpellier, France).

“8th International Congress on Aerobiology”

Neuchâtel, Switzerland

21-25 August 2006

The next IAA Quadriennial Congress, the 8th International Congress on Aerobiology (8th ICA) will be on the theme “Aerobiology: towards a comprehensive vision”. It will be held 21-25 August 2006 at Neuchâtel, Switzerland. Information from either:

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

Bernard Clot (8th ICA Chairperson)
MeteoSwiss
Les Invuades
CH-1530 Payerne
Switzerland
e-mail: <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. Czech palynology has a long tradition of research on Palaeozoic palynology. 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 7th European Palaeobotany-Palynology Conference.

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

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

6th 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>).

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>).

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

Further information will be available on the CIMP website:
<<http://www.shef.ac.uk/~cidmdp/index.html>>.

and also the following websites:

<<http://www.gli.cas.cz>>

<<http://www.nature.cuni.cz>>

“7th European Palaeobotany-Palynology Conference”

Prague, Czech Republic

6-11 September 2006

This meeting is open to all scientists interested in any aspect of the plant fossil record. 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, and will be immediately preceded, at the same venue,

by the CIMP General Meeting (see above). The following pre-and post-meeting fieldtrips are planned:-

6th September: Lower Palaeozoic of the Barrandian area (O. Fatka).

12-13th 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).

Inquires to Stanislav Opustil (e-mail: <eppc2006@nature.cuni.cz>). Further details are available on the following website: <www.natur.cuni.cz/eppc2006/>.

“2nd meeting of the CIMP Spores & Pollen Subcommission”

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>).

ANNOUNCEMENTS

English versions of Russian scientific journals

The history of IAPC “Nauka/Interperiodica” dates back to 1991, when the Russian Academy of Sciences and the U.S. company Pleiades Publishing formed a Russian-American joint

venture: Interperiodica. This co-operation produces high-quality English translations of leading Russian scientific journals that are published simultaneously. Initially Interperiodica published only English translations of Russian journals, but it has subsequently expanded its remit and now is a major publisher, in Russia and abroad, and publishes approximately 100 journals in English and more than 100 journals in Russian in most fields of modern science. IAPC “Nauka/Interperiodica” has the important aim of promoting the achievements of Russian science in the world scientific community.

Among the translated journals, the three listed below may be of interest to palynologists.

Paleontological Journal (Paleontologicheskii zhurnal) is the principal Russian periodical in palaeontology. The journal publishes original work on the anatomy, morphology and taxonomy of fossil organisms, as well as their distribution, ecology and origin. It also publishes studies on the evolution of organisms, ecosystems, and the biosphere, and provides invaluable information on biostratigraphy (with an emphasis on Eastern Europe and Asia). The journal is indexed in *Georef*. In addition, the journal publishes six paleontological monographs per year in its English supplement.

Stratigraphy and Geological Correlation (Stratigrafiya, Geologicheskaya Korrelyatsiya) provides comprehensive coverage of the fundamental and applied aspects of stratigraphy and the correlation of geological events and processes in time and space. Articles are based on the results of multidisciplinary research, and are directed toward researchers, university professors, students and geologists interested in understanding stratigraphy and the chronological features of the world’s geological record. *Stratigraphy and Geological Correlation* is abstracted and/or indexed in Petroleum Abstracts, Research Alert, SciSearch, Current Contents (Physical, Chemical and Earth Sciences) and World Translations Index.

Doklady Earth Sciences (Doklady Akademii nauk) is a journal of the Presidium of the Russian Academy of Sciences. It contains English translations of papers published in *Doklady Akademii Nauk (Proceedings of the Russian Academy of Sciences)*, which was founded in

1933 and is published 36 times a year. *Doklady Earth Sciences* includes materials from the following areas: geology, mineralogy, petrology, oceanology, geography, soil science, paleontology, geochemistry, and geophysics. *Doklady Earth Sciences* is indexed in *Georef*.

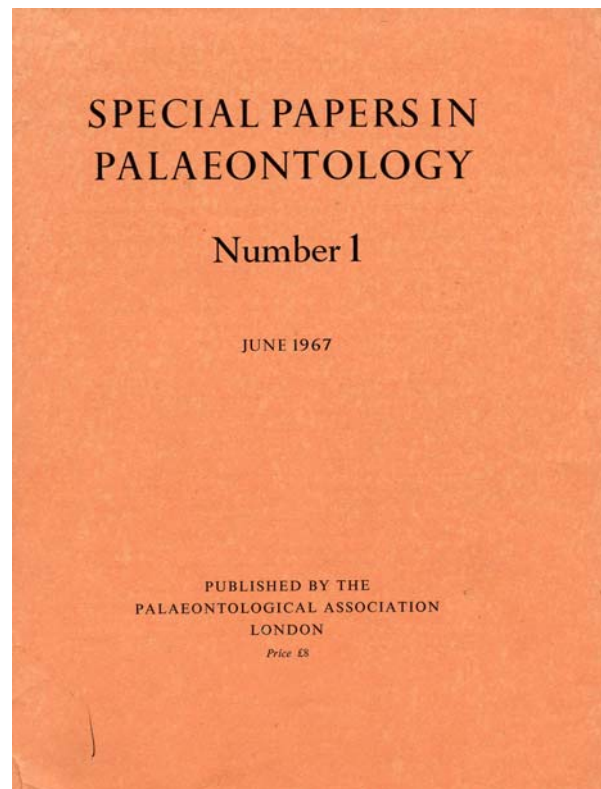
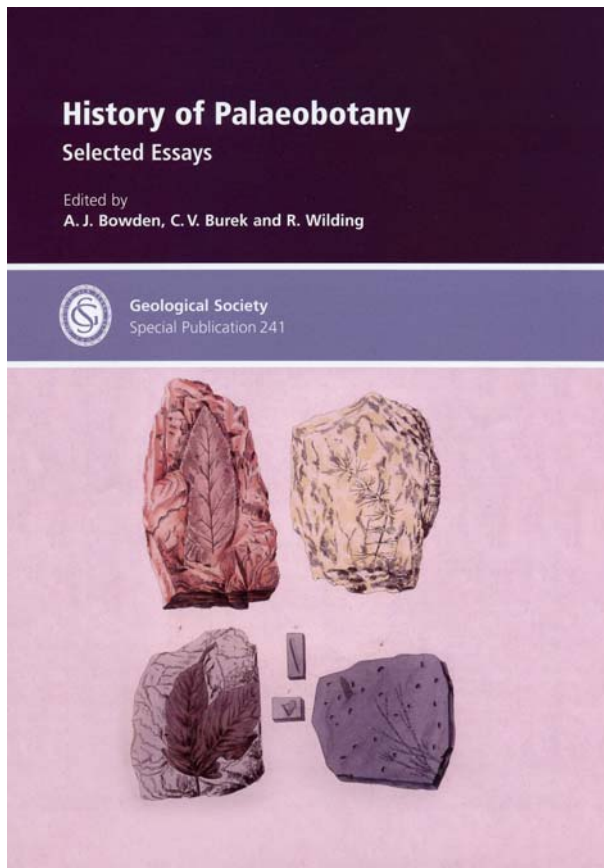
All the journals in the English version are presented in electronic form. Starting in 1996, contents and abstracts of the articles have been freely accessible. The full version of an article can be ordered by filling out the relevant form on the following website: <<http://www.maik.ru>>.

NEW BOOKS

History of Palaeobotany-selected essays edited by A. J. Bowden, C. V. Burek & R. Wilding

Geological Society Special Publication 241 is a selection of essays on the history of palaeobotany. The volume arose from a one-day meeting, on the same theme, of the Linnean Society Palaeobotany Specialist Group (sister group of the IFPS member, the Linnean Society Palynology Specialist Group-LSPSG). The essays in the volume present a fascinating account of aspects of the early development and subsequent history of palaeobotany, including some extraordinary insights into some of the influential characters involved. The volume contains two contributions of particular interest to palynologists: (i) “Arthur Raistrick: Britain’s premier palynologist” by John E. A. Marshall; (ii) “Half a century of palynology at the University of Sheffield” by Charles H. Wellman.

“History of Palaeobotany” was published in April 2005 by the Geological Society Publishing House, Bath, UK. 312 pages, fully illustrated 164 x 246 mm. Price (HB) £80.00 / \$144.00 (SB) £48.00 / \$87.00. ISBN 1-86239-174-2.



Special Papers in Palaeontology No. 1: Miospores in the coal seams of the Carboniferous of Great Britain by A. H. V. Smith & M. A. Butterworth

The Palaeontology Association has recently made available all out-of-print issues of the journal “*Special Papers in Palaeontology*”. These may be purchased as CDs of scanned PDFs of the original paper copies. These include the *Special Papers in Palaeontology No. 1* (Miospores in the coal seams of the Carboniferous of Great Britain) by Smith & Butterworth that was first published in 1967. This classic work has been out-of-print for many years. It is invaluable to Carboniferous spore/pollen workers, including much fundamental taxonomy. The original volume consisted of 324 pages of text plus 27 plates, 72 text-figures and 5 fold out tables.

The CD may be purchased for £5 / \$US10 / 8 Euros (excluding postage and packing) by ordering through the Palaeontology Association website: <<http://palass.org/index.html>>.

Leitfaden der Pollenbestimmung für Mitteleuropa und angrenzende Gebiete by Hans-Jürgen Beug

As stated in the preface, this book is the result of a long-term project which was originally proposed to the author by Firbas in 1957, but could not be completed before the author’s retirement in 1997. It is a comprehensive monograph for the determination of today’s pollen flora of Central Europe and adjacent regions. There is a short introduction comprising several hints to the user, remarks on methodology and nomenclature, a list of terms and abbreviations, a list of “exotic” taxa which have additionally been included and, finally, determination keys for pollen sculpture and pollen classes (“Pollenklassen”). Except for the references and a systematic index, the remainder of the book is devoted to the systematic determination of dispersed pollen. The pollen types are primarily sorted according to familiar gross-morphologically determined pollen classes (e.g. Polyadaeae, Tetradaeae, Monocolpatae, Tricolporatae etc.). Within the pollen classes, a detailed key (including size, details of morphology, wall structure and sculpture) leads to

a determination. Because extant dispersed pollen frequently cannot unequivocally be assigned to a distinct taxon, the detailed key mostly leads at least to genera, groups of species or comparative species, or even distinct species. All of the distinct pollen types and their most important light microscopical characters are individually characterized in detail and figured in a total of 120 plates. The photographs and plates are of high quality. On the one hand, it is regrettably that determination of the pollen types is solely based on characters observed using light microscopical methods, and SEM has not been applied. However, the vast majority of routine work on pollen analysis is still undertaken using light microscopy, and this may therefore be an advantage! This book is highly recommended to anybody working on Late Neogene, Quarternary and extant dispersed pollen of Central Europe and adjacent areas. It is a slight disadvantage that the book is completely written in German, but it can none-the-less serve as a comprehensive atlas to those not fluent in the language.

ranging record of academic duties and research in Quarternary palynology.

“Leitfaden der Pollenbestimmung für Mitteleuropa und angrenzende Gebiete“ was published in February 2004 by Verlag Dr. Friedrich Pfeil, Munich. 542 pages, 29 figures, 12 tables, 120 plates, 245 x 175 mm. Price 90 € ISBN 3-89937-043-0.

IN MEMORIAM

Lex Wijnstra (1932-2004)

Tiete Alexander (Lex) Wijnstra suddenly passed away on the 3rd September 2004. After his retirement in 1995 he spent his time on improving his house, and travelling to Mediterranean countries to satisfy his interests in the history of the Middle east region. After a bike ride in the surroundings of his house, Lex unexpectedly died at his home at the age of 72 years.

Lex Wijnstra was trained as a geologist and worked from 1962 to 1967 with Thomas van der Hammen at the University of Leiden. He did research on the Tertiary sediments of Guyana and Surinam for the Billiton Company, that exploited aluminium ore. In 1971 Lex obtained his PhD degree with a thesis on the palynostratigraphy of Surinam, entitled “The palynology of the Guiana coastal basin”.

In 1967 Lex followed Thomas van der Hammen to the University of Amsterdam. With a number of students they started to work in Twente (eastern Netherlands) where they studied numerous profiles that showed the environmental and climate history since the Middle Pleniglacial time (the last c. 35,000 years).

In the late 1960s Lex Wijnstra organised the 120 meter deep drilling in the basin of Tenaghi Philippon in Greece. There, he collected a series of sediments that, many years later, led to one of the most exiting, long continental pollen records in the world. Pollen analysis showed one million years of climate history of Greece with stunning detail. Pollen analysis is time consuming and requires a lot of patience. Over the years, several colleagues became involved in this project.



Hans-Jürgen Beug is the retired head of the Institut für Palynologie und Quartärwissenschaften of the Georg August-Universität Göttingen (Germany) and has a long

Together with Marian van der Wiel the pollen analysis of the lowermost part of this core was completed and the last core interval was published in 1987.



Lex taught himself computer applications in palaeoecology. He experienced the full range of development of hardware: from the slide-ruler, to the noisy mechanical calculator, the personal computer, and the mainframe. With his team of computer loving PhDs, Henk Witte and Berend de Vries, he guided the research group skillfully into the computerized era.

Although Lex could have explored the data of the excellent Greek proxy-climate record much more, he preferred to spend his time on exploring a variety of new topics in palynology. He focussed with Henk Witte on the construction of a pollen database. In collaboration with Henk Witte he also demonstrated that pollen identification with image analysis was possible. With Antonietta Lorente he developed software to analyse the organic matter content of pollen slides. He was also very much involved in the thesis work of Bram Middeldorp who developed the method of “pollen density dating”, a new methodology that

used changes in the density of pollen grains to make a time axis of a sediment profile. From geological and biological viewpoints Lex Wijnstra explored the boundaries of palaeoecology. One can say that he was truly ahead of his time, since the interface between biology and geology was only officially encouraged last year.

Lex started many days by reading literature. Wrapped in a cloud of smoke from his pipe, he read many articles from *Science* and *Nature* journals. To his colleagues, he often reported relevant aspects of new ideas and speculated how these ideas could be applied to new projects. The publication record of Lex included thorough synthesis papers: he co-authored the now classical paper on “The floral record of the late Cenozoic of Europe” in the 1971 book of Karl Turekian, and he wrote the chapter on “Paleobotany and climate change” in the 1978 book of John Gribbin.

Lex Wijnstra had a very broad view on palaeoecology and climate history. Exploring new fields and developing new methodologies was his strength, as long as he could work together with one, or just a few people. Lex was not at ease in places where many people were meeting, e.g. at congresses. He had a good sense of humour. He speculated on a wide range of ideas, but often his projects had so many degrees of freedom that it was not easy to bring such projects to the finish.

After retirement Lex’s diverse interests presented the opportunity to undertake many activities that were very different from science. When Chronis Tzedakis from the UK continued to work with the data from Tenaghi Philippon, Lex was ready to comment on the manuscripts. He was pleased to observe that ‘his’ data set was still able to fuel new methodologies and a continuous source of further publications. Lex Wijnstra was a well respected colleague and a good friend. We keep him as such in our memories.

Henry Hooghiemstra, Amsterdam, December 2004 (with contributions from Thomas van der Hammen, Bas van Geel and Antoine Cleef).

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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>