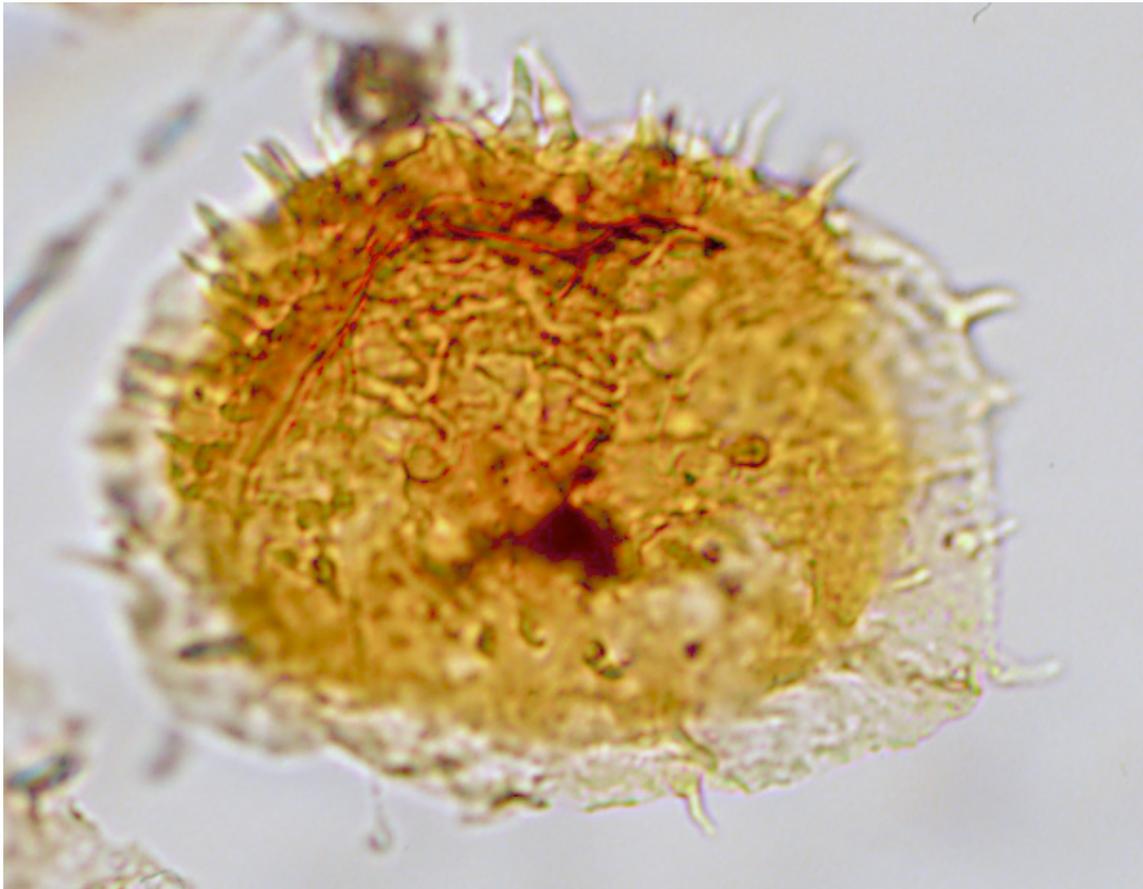


*Spores & Pollen Subcommittee*

*Newsletter No. 9 - 2009 / 2010*

*edited by Hartmut Jaeger*

*March 2011*



**CIMP Spores and Pollen Subcommittee**

**chair: Zelia Pereira**

**secretary: Hartmut Jaeger**



Commission Internationale de la Microflore du Paléozoïque

International Commission of the Palaeozoic Microflora

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### **Message from the chair**

Another year is beginning, with a great number of activities. For those of you who attended the General CIMP Meeting in Warsaw, Poland, you know that we had a very successful meeting with excellent talks and attendance. Our thanks to the organizing committee in the name of Monika Masiak; Marzena Oliwkiewicz-Miklasinska and Marzena Stampień-Salek that did a really good job. We had also a short Spore and Pollen Subcommission business meeting. At that meeting, we gave our thanks to the outgoing secretary, Marco Vecoli and we also welcome our new secretary Hartmut Jäger. Please give him your support and more important, please contribute with news and articles.

On the upcoming events this will be a busy year, with several interesting meetings, the General Assembly of the European Geosciences Union (EGU), XVI International Congress on the Carboniferous and Permian ICCP2011, XXII APLF Symposium and the AASP 44<sup>th</sup> Annual Meeting. There has been a good response to the call of these meetings, so please give these meetings your support. I really hope many of you could attend so Palaeozoic palynology will be well represented there.

Another call is the support of the existing working groups. Hartmut is giving new ideas, and new proposals were made for more working groups. Please give your support and contributions to bring a new vitality to our working groups.

I would like to ask your attention to the work of Philippe Steemans on the new CIMP website. Philippe needs your opinion, suggestions and contributions to improve and continue with this project.

In concluding, I would like to thank all of you who have contributed to this year's Newsletter. I would like to thank also Hartmut Jäger, who compiled the news included in the newsletter.

And to finish, I hope to see many of you again at the upcoming palynologic meetings.

Zélia Pereira

### **Message from the secretary**

First of all, many thanks to all of you, who contributed to this newsletter. Without you it would have been a poor, little scriptum, where most of the interesting things going on in our field of research would have been missed.

A few words to introduce myself. For the most of you my name is linked to Lower Carboniferous spores especially in Germany, a strong focus in my academic career so far. The ones joining the Warsaw meeting last September heard me speaking about Neoproterozoic palynology in Namibia. No doubt, things have changed. Today, doing Palaeozoic palynology for me mainly means Palaeozoic palynology in Northern Africa, covering Ordovician to Carboniferous. I'm still focused on spores, but acritarchs and chitinozoans are included also. All this is part of petroleum system studies and therefore mostly prohibited to publish in any way. It's hard not to be able to present trilete spores from the upper Ordovician or diverse acritarch assemblages from the Westphalian and all the other things you study day by day. But fortunately, I'm able to do some little academic projects beside the HC consultancy. Surely, the time for this is limited, but it provides the material for presentations and papers - like Neoproterozoic palynology in Namibia.

The meeting in Warsaw was a vital and very interesting meeting indeed. It also was a meeting, where I clearly realized, that Palaeozoic palynology and the CIMP will face certain changes in the future. Research topics have changed and newly developed. Compared to the CIMP meeting in Pisa 1998 (the first one I attended), where spore/pollen research was almost completely focused on taxonomy and stratigraphy, spore/pollen studies presented in Warsaw showed a wide range of topics from palaeoenvironmental reconstructions to early evolution of trilete spores and biological

affinities of spores/pollen based on wall ultrastructure and biogeochemical analysis. We also face another major change. The generation of palynologists, starting the CIMP and keeping it alive during the last decades, the names that are almost synonyms of CIMP for me, have already been retired during the last years or will get retired within the next few years. Therefore the baton is passed on to the next generation and now it's our responsibility to keep CIMP running for the next decades. As my little part of responsibility I took over the job as secretary for the spore/pollen subcommission.

Palaeontology underwent major cutbacks during the last years and so did palynology. Schools for (palaeozoic) palynology, big working groups have disappeared and I fear this will continue. Several positions where Palaeozoic palynologists get retired, might not be filled again with Palaeozoic palynologists, if they get refilled at all. More and more palynologists will be left in different institutions, isolated with little local support. This means, there is an increasing need for strong networking and communication platforms and CIMP will be an essential part of this. The CIMP webpage surely is one of the central communication platforms and I'm badly surprised by the poor feedback Philippe got for the great job he did. Please give him your support and keep the CIMP webpage a valuable resource for Palaeozoic palynology in the future. Additionally new ways of networking and communication are available today. For this reason I started a group on facebook not in competition to the webpage, but as a supplement for easy access, direct communication within our subcommission.

Finally, I hope to meet many of you in the meetings coming up this year. There is nothing better, than meeting face to face, sharing scientific sessions and some drinks later on, discussing ideas and future projects.

Cheers

Hartmut

### News from the members

*Liu Feng* (liufeng@nigpas.ac.cn) is Research Associate at Nanjing Institute of Geology and Palaeontology Chinese Academy of Sciences (No.39 East Beijing Road, Nanjing 210008, CHINA). He is specialized in Carboniferous to Permian palynology. He finished his PhD on Late Carboniferous to Permian palynology in Shanxi, Northwest China, in 2010 under the supervision of Zhu Huaicheng.

*Mercedes di Pasquo* (medipa@cicyttp.org.ar) is working at the CICYTTP - CONICET, Diamante, Entre Ríos, Argentina since 2010 (<http://www.cicyttp.org.ar>). She keeps on working mainly on Late Paleozoic Palynofloras (and megafloras) from Bolivia, Argentina and related areas. If you want to know more about her work please go to the websites: [www.cicyttp.org.ar/mdipasquo.htm](http://www.cicyttp.org.ar/mdipasquo.htm) and <http://palino.com.ar> (to download her pdf's you will need to use: username= palino, password= palino2005).

*Sol Noetinger* (snoetinger@gl.fcen.uba.ar) is close to defend her Ph.D on "Studies of palynoassemblages and megaflora from the Devonian of southern Tarija basin, Northern Argentina and southern Bolivia: age, correlation and palaeoenvironment of deposition", supervised by Mercedes di Pasquo.

*Gilda Lopes* (gilda.lopes@lneg.pt) is currently working in her PhD at the University of the Algarve (with P. Fernandes) and the LNEG (Portuguese Geological Survey, with Z. Pereira). She studies the palynology of Paleozoic successions in Portugal (Ordovician to Devonian), including acritarchs, spores and cryptospores.

*Hartmut Jäger* (jaeger@georesources.de) is now working at GeoResources Steinbeis-TransferCentre, a research group focused on hydrocarbon exploration, associated to the University of Heidelberg ([www.georesources.de/jaeger.html](http://www.georesources.de/jaeger.html)). He is focused on

palynostratigraphy, palynofacies / organofacies and organic maturation as part of integrated petroleum system analysis. He is still located at the Institute of Earth Sciences, University of Heidelberg, and part of the institutes research group 'Biostratigraphy and Palaeoecology' as external lecturer for palynology and palynofacies analysis ([www.rzuser.uni-heidelberg.de/~j68/index.html](http://www.rzuser.uni-heidelberg.de/~j68/index.html)).

*Dr. Tian Jiajie* finished his PhD on on Late Silurian to Middle Devonian palynology in Yunnan, Southwest China, supervised by Prof. Zhu Huaicheng (Nanjing) in 2009.

### Research activities (2009 - 2010)

*Tatyana Dimitrova* ([tania\\_d@geology.bas.bg](mailto:tania_d@geology.bas.bg), Geological Institute, Sofia, Bulgaria)

- IGCP Project 469 Variscan terrestrial biotas and palaeoenvironment, 2003-2009;
- The change of the vegetation in Late Carboniferous. Palynological correlation. Bulgaria- Czech Republic. 2007-2009;
- IGCP Project 575, "Pennsylvanian terrestrial habitats and biotas of southeastern Euramerica", 2010-2015;
- International Joint Project – 2009/R1- Royal Society grant; "Palynological evidence for the collapse of the Late Carboniferous palaeotropical coal forests in Britain".
- Palynostratigraphy of the drills - the Black Sea shelf;
- The age of the sediments from the boreholes in North Bulgaria – Bulgargas;
- Palynostratigraphy of the Lower Carboniferous in Dobrudzha Coal Basin.

Future research will focus on the following topics:

- Carboniferous coal-forming swamps as excellent system to evaluate the effects of regional to global climatic changes on ecosystem structure and dynamics.
- Lowland palynoflora: palynostratigraphy and correlation between Dobrudzha Basin (Bulgaria) and Zonguldak (Turkey). Permian pollen taxonomy and stratigraphy.
- Landscape partitioning in the Carboniferous - micro- and macrofloristic connections.
- Development of seed plants (mainly well-drained environments) and lycopsids (typical for swampy, semiflooded habitats).

*John Marshall* ([jeam@noc.soton.ac.uk](mailto:jeam@noc.soton.ac.uk), School of Ocean and Earth Science, University of Southampton, Southampton, UK)

It's been an eventful two years in spore-land. In the summer of 2009 I got back to East Greenland and the Frasnian-Famennian terrestrial section. This was originally visited in 1996 and forms a key section to understanding what happens with spore assemblages through the F/F event. Immediately before visiting Greenland I visited Russia where, in collaboration with Olga Tel'nova and supported by NERC, we drilled an F/F boundary section in the sub-Polar Urals. This has proved to be full of the most beautiful spores.

In the first part of 2010 I had academic leave and spent part of it with palynological (Huaicheng Zhu and Charlie Wellman) and palaeobotanical colleagues (HongHe Xue, Wang Yi and Chris Berry) at NIGPAS in Nanjing, China. This was sponsored by a visiting professorship with the Chinese Academy of Sciences. The project involves comparing the Devonian flora and palynological assemblages from various parts of China. During the Devonian these floras were on the different microplates and volcanic arcs that now comprise China. We have been understanding how China acted as a key link between Gondwana and Laurasia.

During the mid part of 2010 I was much involved with IPC3 both for CIMP and in leading the Old Red Sandstone of Scotland fieldtrip.

At the end of the summer season in 2010 I revisited Mimerdalen in Spitsbergen with Chris Berry (Cardiff) and Charlie Wellman. I worked with Chris in recollecting some of the old localities first visited by Keith Allen in the early 60's. Importantly we relocated some of the fossil plant localities.

2010 saw the publication of long delayed papers in the special part of *Palaeo*<sup>3</sup> which focused on the Mid Devonian Events.

*Liu Feng* (liufeng@nigpas.ac.cn, Nanjing Institute of Geology & Palaeontology, Chinese Academy of Sciences, Nanjing, CHINA)

The demand for more refined palynostratigraphic scheme remains a high priority in Palaeozoic palynology study despite the significant advances that have been made during past six decades in China. Because China has peculiar geographical background, ecological environment and fossil sites during Palaeozoic age, many previous works in palynostratigraphy need to be improved with calibration of reliable age-bracketing fossils and radiochronology. During the last two years Tian Jiajie and Liu Feng did a lot of work on Late Silurian to Middle Devonian palynology in Yunnan (TJ), Southwest of China and Late Carboniferous to Permian palynology in Shanxi (LF), Northwest of China, to establish detailed palynofloral change successions of different ages and areas which can actually reflect the relationship between the vegetation and environment in the Palaeozoic. Many comprehensive miospore zonal schemes were proposed based on a combination of high resolution continuous miospore data in combination with other fauna. These studies provide reliable evidence of both, age and potential interpretations to palaeoenvironments in China.

In the next few years, we will continue refining and improving Palaeozoic palynological schemes through cooperation with John Marshall and other foreign palynologists in Devonian strata in North and Southwest of China. Similar studies including faunal fossils, radiochronology, palaeobotany and petrology will be done on Carboniferous-Permian strata in North China in order to get reliable data on both, age and palaeoenvironments. A summary of these comprehensive studies of Palaeozoic fossil spores and pollen will be published in 'Fossil Spores and Pollen of China, volume 3' after the joint effort of Ouyang Shu, Lu Li-Chang, Zhu Huaicheng and Liu Feng.

*Ian Troth* (Ian.Troth@bg-group.com, BG Energy Holdings Ltd., Reading, UK)

In October 2010 I completed some fieldwork, which involved logging and sampling the Devonian Zorritas Formation in Northern Chile. This work was made possible due to the kind assistance of Prof. H. Niemeyer at the Universidad Católica del Norte in Antofagasta. Assuming reasonable recovery from these samples, John Marshall and I hope to be able to tie the measured Chilean sections to age- equivalent outcrops Bolivia where we have been research active for the last 10 years. The first paper summarizing the work in Bolivia is currently in press (see below) and will appear in forthcoming special volume on Mid Devonian sea-level changes. Next year I hope to complete another field season in Bolivia and also return to Chile.

*Gilda Lopes* (gilda.lopes@lneg.pt, University of the Algarve, Faro & LNEG, Dep. de Geologia, Porto)

I'm currently working on Paleozoic successions of Portugal (Ordovician, Silurian and Devonian). During these last two years fieldwork is being undertaken in the Buçaco, Dornes-Mação, Portalegre and Barrancos regions. Around 400 samples from these regions were collected for palynology and stable isotope studies. In these two years, preliminary results already obtained constitute one of the oldest evidence of terrestrial plants in the fossil record of Portugal. I am currently working in the Mação/Dornes and Portalegre successions. I hope to start early next year the stable isotope studies of all

these regions. Results of these studies will support the ongoing survey mapping project (1:50 000) done by the LNEG (Portuguese Geological Survey) in the studied areas.

*Zélia Pereira* (zelia.pereira@lneg.pt, LNEG, Dep. de Geologia, Porto)

I have been involved with several Devonian and Carboniferous projects in support of the mapping programs at the LNEG Geological Survey. During the upcoming year, I will continue working on the Devonian and Carboniferous palynostratigraphic research and we are now involved in a new project on the Ordovician and Silurian with my colleague Gilda Lopes.

*Phillippe Steemans* (p.steemans@ulg.ac.be, Département de Géologie, Université de Liège, Liège, Belgium)

I'm working on Ordovician to Early Devonian miospores from Argentina with my colleague Claudia Rubinstein (Mendoza). Together with Charlie Wellman (Sheffield) and Merrell Miller (Dhahran) I'm preparing an extended paper on Ordovician palynomorphs from the QSAIBA borehole (Saudi Arabia), where we found the oldest trilete spores. A first synthetic paper is published in Science (2009).

A comprehensive paper on Late Pragian to the Givetian/Frasnian palynology from Saudi Arabia is completed by Pierre Breuer (Dhahran) and me. It is focused on spore systematics and is based on the PhD thesis of Pierre, which is accessible online: <http://bictel.ulg.ac.be/ETD-db/collection/available/ULgetd-02082008-134323>

Emmanuelle Javaux, Kevin Lepot and me (all Liège) work on the chemical composition, ultrastructure and FTIR analysis on the enigmatic *Gloeocopsomorpha prisca*. The material has been collected during a field trip I have done in the Saint Petersburg area with Lena Raevskaya (Saint Petersburg).

Future research: I'm hand picking Silurian cryptospores and trilete spores from Gotland, from the same locality published by Steemans et al. 2010 (RPP). The material will be send to Suryendu Dutta (Bombay) for a geochemical analysis, using pyrolysis-GC-MS.

I progressively moved my research into the field of geochemical and FTIR analysis done on different fossil palynomorphs. The aim is to compare with this extant specimen to improve the understanding of biological affinities of the fossil palynomorphs we observe under the microscope.

*Pawel Filipiak* (pawel.filipiak@us.edu.pl, Faculty of Earth Sciences, University of Silesia, Sosnowiec, Poland)

I am still working in the Devonian and Carboniferous rocks (material from the Upper Silesian Block, the Małopolska Block and the Holy Cross Mountains) and lately on the Upper Silurian and Lower Devonian boundary (material from the Podolia, Ukraine; but it is a beginning).

*Hartmut Jäger* (jaeger@georesources.de, GeoResources Steinbeis-TranferCentre associated to the University of Heidelberg, Heidelberg, Germany)

Spores of the Carboniferous, Devonian and partially Silurian are still a major interest of my research. For petroleum system related consultancy studies the focus is on palynostratigraphy in Northern Africa, but academic side projects are still focused on different topics in Europe also. I still do little bits of mainly Lower Carboniferous palynostratigraphy in Germany. Together with G. Clayton I'm still working on some little case studies on the interaction of changing sedimentary environments and the composition and preservation of spore assemblages in different shelf settings in the Lower Carboniferous of Ireland (Hook Head, Aran Islands, NE-Antrim). Together with

A. Górecka-Nowak I want to continue my initial studies on Upper Visean spore assemblage variations from southern Laurussia to northern Peri-Gondwana, expanding the study towards southern Poland on the one side and to northern Ireland on the other. A second focus of my research is palynofacies analysis for palaeoenvironmental interpretations covering a wide range of stratigraphy and topics: carbonate shelf systems especially lime-marlstone alternations, from the Silurian in Gotland to the Cretaceous in Brasil and Portugal (together with P. Fernandes, Faro), from ocean acidification in the Cambrian to climatic changes in the late Jurassic - early Cretaceous in South America (with colleagues from Heidelberg). Last but not least, I developed a special interest in Neoproterozoic palynology, especially related to 'Snowball Earth'. For more informations check out <http://www.georesources.de/biostratorg.html>

*Marco Vecoli* ([marco.vecoli@univ-lille1.fr](mailto:marco.vecoli@univ-lille1.fr) , CNRS Laboratoire de Paléontologie, Université Lille 1, Villeneuve d'Ascq, France)

1. We have now completed a research on Hirnantian cryptospores from Estonia and Anticosti Island and a paper detailing the taxonomy and phytogeographic significance of the assemblages is ready for submission in the next days; this project has been developed in collaboration with my former PhD student Aurélien Delabroye (now teaching and researching in Toulouse), with Dr. Amalia Spina, former postdoctoral fellow under my mentorship and now working at the CNR of Perugia, Italy, and with Olle Hints from the Geological Institute of Tallin, Estonia.

2. A field trip to Utah in 2009 with Paul Strother from the Weston Observatory of the Boston Colleg, has provided the opportunity to research into lowermost Ordovician cryptospores; some exciting discoveries of new types of cryptospores will shed new lights into hypotheses on origin and early evolution of land plants. Part of the results have been presented in several meetings, and papers are now being prepared.

3. In the past three to four years I have been developing applications of geochemical (in situ, multi-spot isotopic analyses on single specimens, and biomarker extraction and analyses) and spectroscopy (multi-source micro-raman, TFIR, synchrotron radiation) techniques to organic-walled microfossils and in particular to cryptospores and miospores with the objectives of better characterize the geochemical signatures of palynomorphs of different (continental vs. marine) origin, and also to help understand the impact of the evolution of the vegetation cover on global biogeochemical cycles on Earth. One PhD thesis has just been completed on this topic (Maria Fernanda Romero Sarmiento), and new research funding has been obtained to further developing these techniques. This research is conducted in collaboration with partner laboratories in France and abroad (e.g., Germany, Marum, University of Bremen, Dr. Gerard Versteegh).

4. A complete revision of the cryptospore and pre-cryptospore record (Cambrian to Ordovician) in the Gondwana region, especially from North Africa is also being investigated. This includes the first report of cryptospores of earliest Ordovician age from Iran, soon to come!

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### Conference Abstracts (2009 - 2010)

During this time two CIMP meetings took place, the *II. Joint Meeting of Spores/Pollen and Acritarch CIMP Subcommissions* in Faro (Portugal) in September 2009 and the *CIMP 2010 General Meeting* in Warsaw in September 2010. Abstracts of the *II. Joint Meeting of Spores/Pollen and Acritarch CIMP Subcommissions* in Faro can be downloaded from the CIMP webpage <http://www.cimp.ulg.ac.be/CIMP%20publications.html>. Program and abstracts from the *CIMP 2010 General Meeting* can be downloaded from [http://www.ing.pan.pl/CIMP-2010/Graph\\_Attach/CIMP-2010\\_abstract%20.pdf](http://www.ing.pan.pl/CIMP-2010/Graph_Attach/CIMP-2010_abstract%20.pdf). Therefore these abstracts are not included in the following list.

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### Thesis abstracts

#### **Contribution of molecular biomarkers to the knowledge of terrestrial plants development during the Palaeozoic**

Maria Fernanda Romero-Sarmiento,  
 FRE 3298 Geosystems CNRS, Laboratoire de Paléontologie, Université Lille 1  
 Supervisor: Marco Vecoli & Armelle Riboulleau

The aliphatic and aromatic biomarker content from terrestrial and marine sediments of Late Ordovician to Early Carboniferous age have been related to their palynomorph assemblages (e.g. acritarchs, prasinophytes, chitinozoans, cryptospores, trilete spores and megaspores) in order to contribute to the knowledge of land plant evolution during the Palaeozoic. This investigation is therefore focused on the land-derived biomarkers and their attributions to specific kind of plants. The biomarker record of middle Silurian – lower Devonian sediments from southern Tunisia, Ghadamis Basin (Gondwana) reveals the presence of retene, cadalene, kaurane, norabietane, tetrahydroretene, C19 isohexylalkylnaphthalene and simonellite. The early Palaeozoic bryophytes and

tracheophytes (e.g. *Cooksonia*, lycophytes and zosterophylls) may therefore be considered as potential precursors for retene and its related molecular compounds in sediments of Middle Silurian to Early Devonian age. In contrast, the Early Carboniferous flora formed by arborescent lycopods, sphenopsids and pteridosperms have been suggested here as a possible terrestrial source for phyllocladane, abietane, ent-beyerane, bisnorsimonellite, diaromatic totarane, diaromatic sempervirane and 2-methylretene in the Lower Carboniferous (Viséan) coal deposits at Dunbar (East Lothian, Scotland). Among the other biomarkers detected in our samples, ionene, alkyldibenzofurans, perylene and combustion-derived polycyclic aromatic hydrocarbons (PAHs) indicate pollen, lichens, fungi and vegetation fire contributions, respectively. Most of the biomarkers identified here had been so far generally associated to conifers, though conifers only evolved during Late Carboniferous. These compounds therefore are also characteristic of early land plants.

### **Subcommission working groups**

Actually six working groups are listed on the homepage of the subcommission. Starting as secretary of the subcommission I wanted to get a current status of the activities and vitality of these working groups (see below). I started at the subcommissions homepage (I guess, anyone who wants to get contact to the groups will do the same) and these are the results: Two working groups are without any information and contact person, from one working group I didn't got any reply, one working seems to be no longer active, one should 'be disbanded' and the last one is 'largely dormant'. Ok, that's how it is, end of 2010. There is a need for action, I guess. If there is no clear feedback from the membership to continue certain groups listed below, if no one feels responsible to act as coordinator, we should disband them these groups. On the other hand we should look for new topics of future working groups. Or is the system of working groups out of date today and we need other structures? Give us your opinion.

#### **Working Group on *Lycospora* first occurrence**

No information on the working group, no contact person given

#### **Working Group on Upper Devonian *Grandispora***

No information on the working group, no contact person given

#### **Working Group on Dinantian-Namurian palynostratigraphy**

Contact: Bernard Owens - no reply

#### **Working Group on *Vallatisporites***

I don't think the *Vallatisporites* working group is any longer active. - John Utting

#### **Working Group on Gondwanan Permo-Carboniferous palynostratigraphy**

Very little is done as part of this project. Really the work is confined to individual efforts. A few papers have been published that have reviewed Gondwanan Permo-Carboniferous palynostratigraphy. I recommend that the working group be disbanded unless someone else can help to drive it forward. - Mike Stephenson

#### **Working Group on the Namurian-Westphalian boundary**

This Working Group is largely dormant at the moment, in part because members have not attended C.I.M.P. meetings together. Some of the lack of activity may also reflect the regrading of the Langsettian and Yeadonian to local European substages, and the perception that the boundary between the two thus represents a less significant mid-Bashkirian event. I would continue to argue that the late Namurian-early Westphalian represents a significant period of evolution of the terrestrial vegetation, both genetically

and palaeoecologically. Often the palynology of this interval can be difficult due to high morphological diversity and variation in the microflora, but the potential rewards in terms of high-resolution biostratigraphy and paleoecology are high. I would urge anyone interested in the palynology of the late Namurian and early Langsettian (or mid Bashkirian if you prefer) to contact me.

Several group members have published information relevant to the understanding of the palynostratigraphy of Namurian-Westphalian boundary section in the last decade (e.g. Owens *et al.*, 2004; Utting *et al.*, 2010) but these have been independent efforts rather than the products of the Working Group. Currently, Bernard Owens and Duncan McLean have material from the Langsettian stratotype section which they intend to review in the coming year, and Duncan McLean is currently working on some well-preserved material from extended cored sections recovered across the Namurian-Westphalian boundary offshore in the southern North Sea. Work on these shows the continuing difficulty in consistently identifying the base of the Langsettian using palynology.

References:

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UTTING, J., GILES, P.S. & DOLBY, G., 2010. Palynostratigraphy of Mississippian and Pennsylvanian rocks, Joggins area, Nova Scotia and New Brunswick, Canada. *Palynology*, **34**, 43-89. - Duncan McLean (d.mclean@mbstratigraphy.co.uk)

### Future working groups

A few proposals were made for new working groups.

A working group on ***Carboniferous and Permian pollen and spore stratigraphy*** is proposed by *Tatyana Dimitrova* (Sofia). Maybe, Tatyana can take over responsibility for the working group on Gondwanan Permo-Carboniferous palynostratigraphy from Mike Stephenson, expand it to a general Permo-Carboniferous palynostratigraphy working group and try to reanimate its activities. Will you try?

A working group on ***taxonomy and palynostratigraphy of cryptospores*** is suggested by Gilda Lopes (Faro, Porto). The subcommission already had a working group on cryptospores some years ago. Is it time to start it again? Who is interested to join and who wants to take over the responsibility?

Looking on contributions of palaeozoic spore and pollen research in different meetings during the last years I realized more potential topics for working groups:

***Silurian - lower Devonian spores and cryptospores and palynostratigraphy.***

***First trilete spores - evolution and biological affinities.***

***Biological affinities of pollen, spores and cryptospores based on wall ultrastructure and biogeochemical analysis.***

This a call for active participation. Is there anybody willing to take over active responsibility for one of these working groups - already existing ones or proposed ones? I'm waiting for your reply.

We really need a reassessment of the working groups on our webpage. To keep listed the minimum should be a short description of the goals of the group and contact person(s) (including email) who really replies on email requests. Anything else like short notes on current activities or listing actual papers related to the group are very welcome. But if the minimum is not even present, the working group should be disbanded.

## Reports from past meetings

### ***CIMP FARO'09, II. Joint Meeting of the CIMP Spores-Pollen and Acritarchs Subcommissions, Faro, September 2009***

Paulo Fernandes hosted this meeting at the Faro University, at 30th anniversary of the Algarve University. A program was prepared including two-days of scientific presentations whose topics covered most of the aspects of recent palynological research, ranging from stratigraphy, evolution of early plants and microplankton to past global climate change.



The scientific part of the meeting was followed by two day field trip, led by Tomás Oliveira (LNEG), to the western Algarve, whose highlights were the Upper Devonian and Carboniferous coastal outcrops of the South Portuguese Zone. We also had the opportunity to visit the famous Variscan unconformity at Telheiro beach and some key coastal outcrops of the Mesozoic Algarve Basin.



It was a full programme, with good geology and impressive coastal landscapes.  
Thanks to Paulo and the team of the Algarve University. - Zelia Pereira

***CIMP 2010 General Meeting "Palynology and its possibilities: a record of climate and environmental changes", Warsaw-Kielce, Poland, 13-16 September***

The meeting organized by Monika Masiak, Marzena Oliwkiewicz-Miklasińska and Marzena Stempień-Salek was held at the Kyriad Prestige Hotel a very suitable venue close to the Institute of Geological Sciences, Polish Academy of Sciences, where the ice-breaking party and microscopic workshop took place. Although it was one of the smaller meetings, palynologists from all over the world made their way to Warsaw. A wide range of very interesting palynological studies were presented, giving a vital overview of actual research directions in Palaeozoic palynology. Topics included taxonomy and palynostratigraphy just as palaeoenvironmental reconstructions, early evolution of trilete spores and biological affinities of spores/pollen based on wall ultrastructure and biogeochemical analysis. It was a very well organized meeting, timetables were kept, no bad surprises, and enough time in the breaks for fruitful discussions. The three days of scientific presentations also included interesting after work tours to the gastronomy and pub scene of Warsaw, a superb Conference Dinner and an interesting guided tour to the city of Warsaw. This was followed by a three-days



field trip to the Holy Cross Mountains. The tour covered all of the Palaeozoic, from Cambrian sandstones to Permian conglomerates and limestones, including a spectacular graptolite graveyard in the Prągowiec ravine, a nice Devonian-Carboniferous boundary section in the Kowala quarry just as the worlds oldest tetrapod tracks (sorry for the irish) and the Variscan unconformity in the Zachelmie quarry. The tour was very varied, huge active quarries, almost untouched nature in little valleys, old little pits hidden in the woods and as bonus a very challenging climbing tour through the Prągowiec ravine.

We also had a stop at the Polish Geological Institute – National Research Institute (PGI- NRI), Holy Cross Mountain Branch in Kielce, looking at several cores of Proterozoic and Lower Palaeozoic rocks from southern Poland and visiting the Geological Museum. All this was spiced up with some touristic and cultural highlights like the Chęciny Castle, the Holy Cross Monastery and the peri-glacial boulder fields at Łysa Góra, a guided tour to Kielce and the prehistoric flint mines of Krzemionki. Again everything was very well organized, including a nice barbecue and lots of great craic on our way (special thanks to Ken for the great entertainment).



Many thanks to Wiesław Trela, Zbigniew Szczepanik, Anna Fijałkowska-Mader, Jan Malec and Monika Jachowicz-Zdanowska giving us a little insight into a part of Europe, where no one of us had been before. For more information on the meeting and the field trip visit [www.ing.pan.pl/CIMP-2010/index\\_cimp.htm](http://www.ing.pan.pl/CIMP-2010/index_cimp.htm) - Hartmut Jäger

### **Annual Meeting IGCP 575**

Inaugural Meeting of IGCP 575, Karaelmas University, Zonguldak, northern Turkey. Seventeen members of IGCP 575 attended (from the UK, Germany, Czech Republic, Poland, Turkey, Bulgaria, Serbia and Croatia) plus an additional 25 Turkish colleagues. A group from IGCP 575 is also intending to return to Zonguldak (Turkey) to examine some of the borehole cores being made available by the coal mining companies in the area. - Tatyana Dimitrova

### **Upcoming meetings**

#### **The TMS Silicofossil and Palynology Groups Joint Spring Meeting 2011:**

We are pleased to announce the 4th Joint Meeting of the TMS Silicofossil and Palynology specialist groups. The meeting will take place on 31st March 2011 at the University of Tromsø, Norway, and will be locally coordinated by Catherine Stickley. Please note that there is no registration fee for the event. Non-members of TMS are welcome to attend. As with previous joint meetings (UEA 1992, Cardiff 2004, Utrecht 2006), this conference will take advantage of the shared interests and expertise of these groups' members, and will bring together exciting new developments in silicofossil and palynological research. The meeting will include a day of talks and discussions followed by a wine reception. We also invite you to join us for dinner in the city of Tromsø at a popular traditional restaurant. For more information see: [http://www.nhm.ac.uk/hosted\\_sites/tms/silicopaly2011.htm](http://www.nhm.ac.uk/hosted_sites/tms/silicopaly2011.htm)

**The General Assembly 2011 of the European Geosciences Union (EGU)** is held in Vienna, Austria, from 03 – 08 April 2011. Beside many other topics the meeting includes several sessions on Biogeosciences, Ocean Sciences and Stratigraphy, Sedimentology & Palaeontology. See also: <http://meetings.copernicus.org/egu2011>

**ICCP2011, XVI International Congress on the Carboniferous and Permian**

ICCP 2011 will be held in the School of Earth and Environment, The University of Western Australia, Perth, from the 3 to 8<sup>th</sup> July, 2011. Topics will include all aspects of the Carboniferous and Permian including marine and non-marine correlations, macro and microfossils, palaeoclimatology, palaeobotany and palynology. Pre and post Congress field excursions, mid Congress excursions and poster sessions will be included. For further information visit the website: <http://www.iccp2011.org>

**AASP (the Palynological Society) 44<sup>th</sup> Annual Meeting, Southampton, UK,**

From the 5-7<sup>th</sup> September 2011 we have the AASP 44<sup>th</sup> Annual Meeting in Southampton, England. This will include a Palaeozoic symposium. It is a joint meeting with The Micropalaeontological Society - Palynology Group and the Linnean Society. The AASP Meeting immediately follows the DINO 9 meeting in Liverpool. For more informations: <http://www.palynology.org/meetings.html>.

**XXII APLF Symposium, Meudon, France, September 20-22, 2011**

The next APLF Symposium will take place in September 2011 in Meudon, France, and will be organized by Agnès Gauthier, Nathalie Combourieu Nebout, and Vincent Lebreton under the main theme: PALYNOLOGIE et DIVERSITES: marqueurs, milieux, méthodes, modèles, applications [Palynology and Diversity: markers, environment, methods, models, applications]. For more information see: <http://w3.laplf.univ-tlse2.fr>

**2011 meeting of IGCP 575 (Pennsylvanian terrestrial habitats and biotas)**

The main 2011 meeting of IGCP 575 (Pennsylvanian terrestrial habitats and biotas of southeastern Euramerica) is to be held in Belgrade, hosted by the Natural History Museum (organised by Desa Djordjevic-Milutinovic, Jasenka Sremac and Tea Kolar-Jurkovšek). Field trips will be organised to outcrops in Serbia, Croatia and possibly Slovenia. More informations see: <http://igcp575.org/index.htm>

**Diversa**

**PalyWeb**, the worldwide database of fossilized palynomorphs from pre-Mesozoic levels is no longer maintained.

Actually I'm creating a database on the most important species from the Ordovician to the Carboniferous, together with my assistant Elodie Petus. This work has begun in 2009 and will continue up to end of 2012. This database is financially supported by a petroleum company from Brazil (I let you guess). I take this opportunity to ask you, if you would have available samples from the Late Devonian up to the Bashkirian to include into this database. Expenses will be refunded, of course. Please contact me by email [p.steemans@ulg.ac.be](mailto:p.steemans@ulg.ac.be).  
- Philippe Steemans

**CHITINOVOSP, a database recording the chitinozoans species**

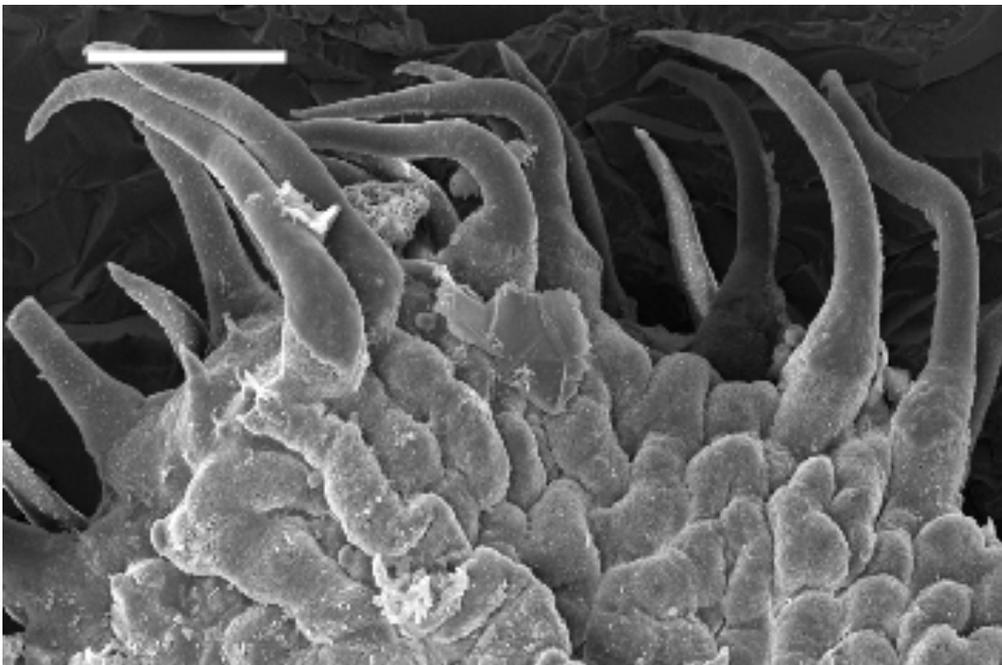
A new version of CHITINOVOSP database is available now in English. It records all chitinozoan species described since the first taxonomic paper on the group (Eisenack 1931) and is for sale as CD. It may be of some help for Palaeozoic spore workers not very familiar with the chitinozoans, but who want to have a broad idea on chitinozoans they encounter in their palynological preparations. CHITINOVOSP runs on FileMaker ProTM software. It includes an illustration of the holotype of most of the 1240 species and subspecies recorded so far in the group. It contains taxonomic information (species, sub-species, genus, updated generic assignment) and bibliographic data (author(s), year of description of the taxon and the related full reference, including the figure numbers of the type material). Other helpful data concerning the chronostratigraphy (range of the species by System, Series and Stages, as well as its FAD and LAD when accurately known) and the palaeogeographical location

(locality/country and palaeoplate) of the recorded species are also provided. This database gives therefore an easy and immediate access to the main information concerning the chitinozoans. Terms and condition of sale for academic researchers, or for industrial utilization, can be obtained from "Creation Graphic" by E-mail: parisol@wanadoo.fr. See also the web page: <http://www.geosciences.univ-rennes1.fr/spip.php?article10>  
- Florentin Paris

What about bringing the subcommission to the facebook? In our days I believe it would be very interesting.  
- Gilda Lopes

Using Facebook for private purposes myself, I never thought about bringing the CIMP spore-pollen subcomm to facebook. But the more I think about it, the more I like the idea. As mentioned before, I see an increasing need for strong networking and communication between spore-pollen researchers from all over the world and facebook provides a perfect platform to do this. You can write messages, upload texts, pictures and videos and share informations or requests directly by chatting with other members of the group. All this is done in real time, directly by you without any webmaster managing all the information, like for a webpage. Therefore I just started the group 'CIMP Spore-Pollen Subcommission' on facebook. Come along, join in and make it a vital communication platform for our subcommission. For all being facebook members already - search the group on facebook and join it. For all non-members: You have to become a member of facebook first. Don't be afraid, it's you, who decides how much and what personal information you give away in your facebook profile. If you have become a member, search for 'CIMP Spore-Pollen Subcommission' and join the group. Looking forward to meet you all in facebook....  
- Hartmut

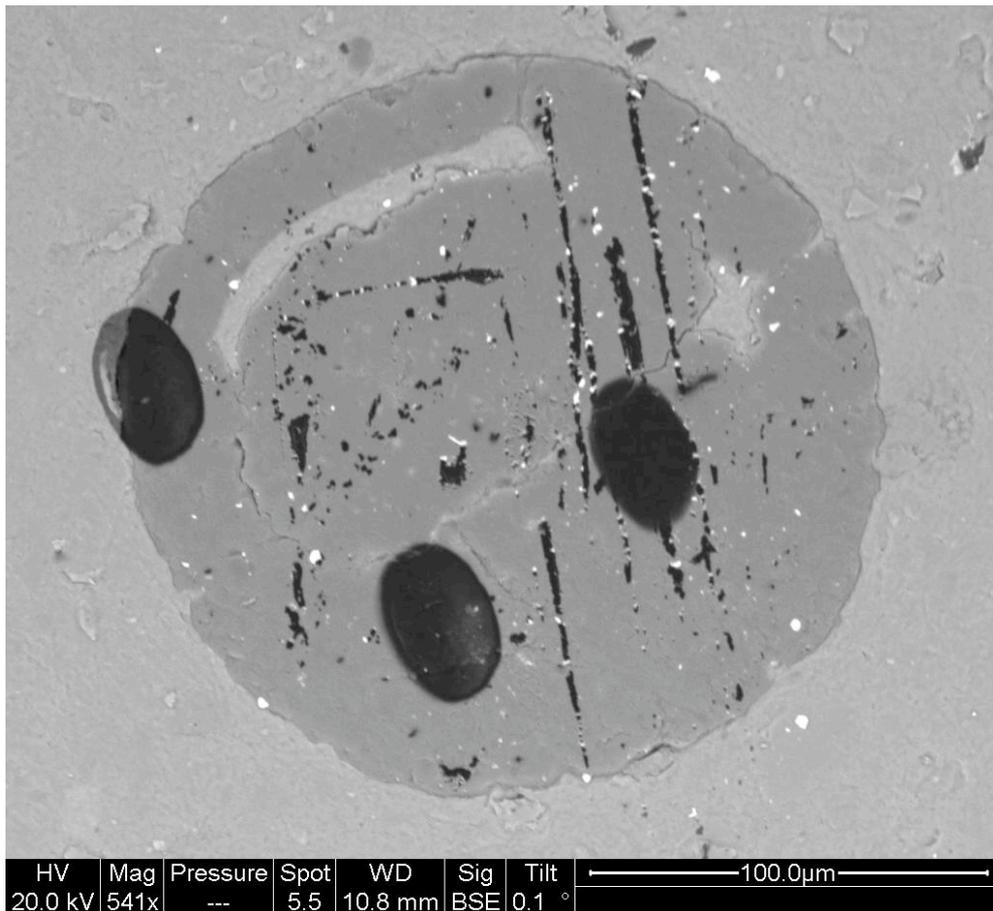
### News from the microscope



Detail of the proximo equatorial ornamentation of the new variety of the megaspore: *Corystisporites (Heliotriletes) acutispinosus* (Fuglewicz and Prejbisz) Turnau var. *bullatus* var. nov. which will be soon published in RPP. This Lybian megaspore is Givetian in age. Scale bar: 50  $\mu$ m



Upper Devonian organic tentaculid remain (Western Pomerania/Poland) - Filipiak & Jarzynka (2009).



*In situ* miospore in a Devonian sediment from the subsurface of the Illizi Basin (Algeria) showing burned spots corresponding to single-specimen multiple measurements of  $d^{13}C$  with ultra-precision SIMS analyser (Vecoli and collaborators, under progress).