SPORES AND POLLEN NEWSLETTER

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Compiled by Duncan McLean and Ken Higgs

Spores and Pollen Subcommission

Commission Internationale de Microflore du Paléozoïque

Spores and pollen Subcommission
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Newsletter Contents

1. Message from the Subcommission Officers

In this newsletter is a list of collected Palaeozoic spores and pollen publications and abstracts for the last year. This shows a healthy level of activity in Palaeozoic terrestrial palynology. A large amount of activity was centred around the principal conferences of the year: the general C.I.M.P. Symposium expertly organised by Thomas Servais and his team in Lille, and sessions of the International Palaeontological Congress in Sydney, Australia. We hope that this level of activity will continue, particularly as the Spores and Pollen Subcommission is organising a session next year at the International Congress on Carboniferous-Permian Stratigraphy in Utrecht, while the C.I.M.P. is involved in organising the 11th International Palynological Congress in Grenada, Spain, in 2004. Can we really expect the Subcommission membership to provide new and interesting research annually for four consecutive years? Let us hope that "conference fatigue" does not set in after Cork (2001) and Lille (2002)!

Ken Higgs and Duncan McLean

2. Call for Nominations of Subcommission Officers

Terms of office of the chairman and secretary of the Subcommission end in 2003. It is now time to call for nominations for candidates to take over these roles. A vote on candidates will take place during the next Subcommission meeting at the International Congress on Carboniferous-Permian Stratigraphy at Utrecht, The Netherlands in August, 2003. As all Subcommission members will not attend this meeting, there will be a parallel postal ballot.

The desirability of having both Subcommission officers replaced at the same time was discussed during the C.I.M.P. General Assembly in Lille earlier this year. There is a desire to avoid having both officers replaced at the same time to maintain a degree of continuity. So it is possible that one of the current officers will be nominated for a third term. However, please do not allow this to influence any desire to nominate or be nominated for these posts. Please send nominations to the Subcommission secretary before 1st May, 2003. If you are in any doubt as to the nature of the tasks involved in acting as an officer of the Subcommission please feel free to contact Ken Higgs or me.

Duncan McLean

3. Subcommission Working Groups

C.I.M.P. Working Group on Dinantian-Namurian palynostratigraphy

Contact: Bernard Owens (e-mail: bowens@palyno.freeserve.co.uk)

At the Subcommission meeting in Cork in 2001, we established a working group to study palynological changes at the Viséan–Namurian boundary. Data in Clayton *et al* (1977) suggest that there is no significant palynological change at the boundary with the NC Biozone extending from the mid part of the Brigantian to the late Pendleian. Recent studies carried out by Bernard Owens in northern England and by Duncan McLean in the North Sea, suggest that this may be an over simplification and new zones might possibly be erected. The sections in northern England will be critical to this study as they represent the only UK sections where independent calibration of the changes might be possible. Owens and McLean together with David Bodman are currently engaged in that study. At the recent C.I.M.P. meeting in Lille, we tried to make further progress with the Group but few relevant people were present. There will be some input from Krakow and we are trying to get data from Bulgaria. No one appears to be working on this interval in Russia.

Interest in the Subcommission on Carboniferous Stratigraphy now seems to be shifting from an intra-Viséan boundary to a Viséan-Serpukhovian boundary. They want to place this in the late Viséan or close to the Viséan-Namurian boundary, although that appears to be still a matter for discussion. This development provides palynologists with an opportunity to make a significant contribution. Undoubtedly however, there will be a conflict of interests with the conodont, foraminiferal and macrofaunal studies being carried out in predominantly carbonate sequences that are probably not going to be productive palynologically. Palynologists who might have time to contribute to this study should concentrate their activity on sections extending from the middle part of the Viséan, up to at least the top of the Pendleian. We have new data from the base of the Arnsbergian to the proposed level of the Mid Carboniferous boundary (Mississippian-Pennsylvanian) already available in a number of publications. Owens, McLean and Bodman will be working on the northern England sections and have a possibility to investigate parallel sections in some of the North American counterparts including the type sections of the Chester in Illinois and some of the reference sections in Arkansas and Oklahoma. Material from those sections is already prepared and of good quality. They plan to carry out the North American study with Geoff Clayton and ammonoid and conodont workers in Arkansas and Kentucky

C.I.M.P. Working Group on *Vallatisporites*

Contact: Bernard Owens (e-mail: bowens@palyno.freeserve.co.uk)

The *Vallatisporites* Working Group was established to review the taxonomic status of the genus and all of the 30 species assigned to it. Work will focus on the critical re-examination of type and co-type material from as many of these species as possible in order to validate their generic assignment and to confirm the currently accepted morphological interpretation of the genus. Material from more than 60% of the species has already been obtained and distributed to members of the Group. Efforts are being made to obtain material from the remaining species and we would be grateful to any member of C.I.M.P. who might have material containing well preserved specimens of the following:-

V. splendens Staplin & Jansonius - Viséan of Canada

V. devonicus Kimyai - Devonian of Iran

V. galearis and *V. communis* Sullivan - Viséan of England

V. (Tholisporites) foveolatus Playford - Viséan of Spitsbergen

We are also interested in obtaining specimens or samples containing species of *Vallatisporites* or morphologically analogous species that might have been assigned to other genera (e.g. *Cristatisporites*) from the Gondwana Continent.

In the longer term, it is the objective of the Working Group to examine the relationships between the genus and other potentially morphologically similar genera such as *Kraeuselisporites, Cristatisporites, Cirratriradites* and Russian species assigned to either *Hymenozonotriletes* or *Archaeozonotriletes.*

C.I.M.P. Working Group on cryptospore systematics

Contact: Charles Wellman (e-mail c.wellman@sheffield.ac.uk)

A number of long-standing taxonomic problems were cleared up in a paper by members of the Group (Steemans *et al.* 2001). There are plans to develop a web-based taxonomic database of cryptospores. Ken Higgs, Phillipe Steemans and Charles Wellman will meet in Liege in 2003 to further the Group's work.

STEEMANS, P., HIGGS, K. and WELLMAN, C. H. 2000. Cryptospores and trilete spores from the Llandovery, NYYM-2 borehole, Saudi Arabia. 92-

115. *In:* AL-HAJRI, S. and OWENS, B. (eds), *Stratigraphic Palynology of the Palaeozoic of Saudi Arabia*. Gulf Petrolink.231 pp.

C.I.M.P. Working Group on Permo-Carboniferous Palynostratigraphy

Contact: Dr Mike Stephenson (email: m.stephenson@bgs.ac.uk)

C.I.M.P. Working Group on Namurian-Westphalian boundary palynostratigraphy

Contact: Duncan McLean (e-mail: d.mclean@sheffield.ac.uk)

4. The Subcommission on the Web

The C.I.M.P. website is at: http://www.shef.ac.uk/~cidmdp/index.html

The Spores and Pollen Subcommission pages can be accessed directly at:

http://www.shef.ac.uk/~cidmdp/cimpsubs.html

5. Meeting reports

Minutes of on the Second Business Meeting of the C.I.M.P. Spores and Pollen Subcommission, Lille

A short business meeting of the Subcommission took place during the C.I.M.P. General Assembly at the University of Lille.

1. **Subcommission Officers' Report.** (Ken Higgs). Ken reviewed the history and activities of the Subcommission.
2. **Subcommission Working Groups.** (Duncan McLean). All Working Group co-ordinators were asked to prepare submissions outlining their past, present and expected activities. These are to be presented to the next Subcommission meeting.
3. **Next Meeting.** (Ken Higgs). The next meeting of the Subcommission will take place at the International Congress on Carboniferous Stratigraphy at Utrecht, in August, 2003. Oscar Abbink is to arrange a C.I.M.P. session for this congress.
4. **Any Other business.** None

Duncan McLean

The First International Palynological Congress (IPC, 2002)

Charles Wellman

Palynological Research Facility, Department of Animal and Plant Sciences, University of Sheffield

Mounting international palaeontological congresses at regular intervals is a new initiative for the International Palaeontological Association. This process was begun with The First International Palaeontological Congress (IPC2002) that was held at Macquarie University, Sydney, Australia in July 2002. More than 400 palaeontologists from 35 nations gathered for this meeting, which covered the entire spectrum of palaeontology through a series of concurrent symposia and poster sessions. There were also some pretty good fieldtrips before, during and after the symposium, exploring some of Australia's rich palaeontological heritage.

I am delighted to report that palynology was extremely well represented at this inaugural conference. Much of this was down to two particular symposia celebrating the achievements of two of our most distinguished palynologists: Geoff Playford who has just retired and Jane Gray who sadly passed away recently.

The Geoff Playford symposium was spread over two days and consisted of more than 30 talks. The majority of these were palynological. As far as I could see all palynomorph groups of all ages were covered in some form or another. The symposium was a fitting tribute to such an influential palynologists as Geoff. Geoff has produced a huge volume of exquisitely illustrated and painstakingly detailed taxonomic works, covering both marine and non-marine palynomorphs of a variety of ages. When looking through my box of Geoff's reprints, one thing that always strikes me is how diverse his palynological expertise is (this is not a palynologist that confines himself to a specific group or a certain age). The shear breadth of palynology on display during this symposium was entirely fitting.

On the evening the symposium finished a special "Geoff Playford dinner" was held. This excellent occasion saw the gathering of a large number of Geoff's palynological friends for some fine food and exquisite wines. We learnt much about Geoff as a series of his Ph.D. students and colleagues stood up to regale us with many hilarious stories spanning Geoff's career. Listening to Geoff's former students it struck me just how great Geoff's contribution to Australian palynology has been. Not only has he produced excellent work and trained a generation of new recruits, but he has also been very much an

international focal point for Australian palynology. It was a superb evening and I am sure that Geoff must have enjoyed it very much.

The theme of the Jane Gray symposium was the invasion of the land, reflecting Jane's immense contribution to this subject area. It began with several talks considering the invasion of the land by plants (using both palynological and palaeobotanical evidence), and went on to consider the invasion of the land by arthropods and then tetrapods. This symposium reflected one of Jane's major research areas—but in no way covered the spectrum of her incredibly diverse ecological interests. A remarkable (sometimes idiosyncratic, and usually controversial) lady, Jane made major contributions to Tertiary palynology (pre-1970) and Palaeozoic palynology (post 1970). She will, perhaps, be best remembered for her groundbreaking work on the origin of land plants. Initially her theories were highly controversial, but they have now gained general acceptance, as was clearly demonstrated in this symposium.

There was also a smattering of palynological talks in other symposia. I see this as a natural reflection of how much palynology has so offer so many disciplines. Be that providing biostratigraphical ages, palaeoenvironmental determinations, evidence for palaeogeographical interpretations, information on the earliest life forms, and so on. A good example was Kath Grey's contribution on Neoproterozoic palynomorphs in the symposium "Towards zonation of the Proterozoic". There were many other examples in a great variety of other symposia.

I consider that the First Internal Palaeontological Symposium was a great success. It brought together diverse palaeontologists, who may not meet up so often in these days of specialization and narrow spectrum conferences. I certainly learned much about what was going on in palaeontology outside of palynological circles. I hope other palaeontologists were given the opportunity to realize just how interesting and useful palynology is. Palynology was certainly very well represented, and came out in very good light. It is our duty, as palynologists, to maintain this momentum in four years time when the Second International Palaeontological Conference takes place in China.

My only complaint (and a highly significant one): the International Palaeontological Congress managed to create confusion, hysteria and mass panic among a great many palynologists. They have used the acronym (IPC). We all know that IPC is the long established acronym for the International Palynological Congress, and has been since at least 1962. How dare they purloin our acronym. Clearly we have priority (as all palaeontologist should know - excellent taxonomists that we are).

6. Future Meetings

XVth International Congress on Carboniferous and Permian Stratigraphy

Utrecht, The Netherlands, 10th - 16th August 2003

Organised by Netherlands Institute of Applied Geoscience TNO - National Geological Survey (TNO-NITG) and the Faculty of Earth Sciences of Utrecht University

Session 5C Palynology

Convenors: Oscar Abbink (TNO-NITG) & Duncan McLean (University of Sheffield)

The Palynology session within the Congress framework will be organised by the *Commission Internationale de Microflore du Paléozoïque* (C.I.M.P.). Various themes may be addressed during the session including palynostratigraphy, morphology, and the phytogeography of all palynomorph groups. Although it is hoped that the session will have a strong international flavour, papers with a West European focus will be particularly welcome.

You are invited to submit abstracts concerning Carboniferous and Permian palynological studies to either O. Abbink (o.abbink@nitg.tno.nl) or D.McLean (d.mclean@sheffield.ac.uk)

Final submission date for abstracts is March 1st, 2003.

Details of the Congress can be found on the TNO-NITG website at www.nitg.tno.nl/eng/iccp.shtml

7. Recent Publications and Abstracts (2001, 2002)

Publications

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DI PASQUO, M., 2002. The *Crassispora kosankei-Cystoptychus azcuyi* palynozone of the Upper Carboniferous Tupambi Formation, Tarija Basin, northern Argentina. *Review of Palaeobotany and Palynology*, **118**, 47-76

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HARVEY, C., 2001. An oxidation and stable mounting technique for geothermally altered Upper Devonian palynomorphs from western Venezuela. *Journal of Micropalaeontology*, **20**, 123-125.

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8. Taxonomic News (2001, 2002)

For references see above.

Newly described taxa

Genera

Crumenasporites Turnau 2002, p. 264.

Maithyspora Tripathi & Mishra 2001, p. 40.

Marginatisporites Oshurkova 2002, p. 47.

Tergobulasporites Turnau 2002, P. 262.

Vermiverruspora Beck & Strother 2002, p. 150-151.*

Species

Ambitisporites capitaneus Beck & Strother 2002, p. 140-142, pl. 4, figs. 12-14.*

Ambitisporites marginatus Beck & Strother 2002, p. 142-144, pl. 1, figs. 16-18.*

Apiculiretusispora arcidecus Richardson *et al.* 2001, p. 138-139, pl. 2, fig. 4.

Chelinospora canistrata Richardson *et al.* 2001, p. 155, pl. 8, fig. 8.

Chelinospora cantabrica Richardson *et al.* 2001, p. 155, pl. 4, fig. 7, pl. 9, fig. 1.

Chelinospora lavidensis Richardson *et al.* 2001, p. 156, pl. 9, fig. 2.

Chelinospora media Richardson *et al.* 2001, p. 159, pl. 9, fig. 6.

Chelinospora textilis Beck & Strother 2002, p. 149-150, pl. 5, figs. 2-8, 9(?), 10-11, 12(?).*

Coronaspora cromatica Richardson *et al.* 2001, p. 150, pl. 6, fig. 6, pl. 8, figs. 1-4.

Coronaspora reticulata Richardson *et al.* 2001, p. 150-153, pl. 6, fig. 7, pl. 8, figs. 5,6.

Cystoptychus azcuyi Di Pasquo 2002, p. 63-64, pl. 2, figs. 5, 6, 8, 9, 12, 15, 17.

Dijkstraea indica Tripathi & Mishra 2001, p. 40-41, pl. 1, fig3. 1-3, text-figs. 3a, e, f.

Hispanaediscus scabiosus Beck & Strother 2002, p. 164, pl. 3, fig. 11, pl. 10, figs. 4-9.*

Hispanaediscus imbricatus Beck & Strother 2002, p. 165, pl. 7, figs. 7-8, pl. 11, figs. 8-10.*

Maithyspora ovalis Tripathi & Mishra 2001, p. 40, pl. 1, figs. 4-6, text-figs. 3b-d.

Laevigatisporites rotundus Oshurkova 2001, p. 21, pl. 1, figs.1, 2.

Marginatisporites discoideus Oshurkova 2001, p. 47-48, pl. 12, figs. 6, 7.

Pilosisporites aleksandrae Oliwkiewicz-Miklasinska 2001, p. 171-173, pl. 1, figs. 1-9.

Neoraistrickia crinata Oliwkiewicz-Miklasinska 2001, p. 173, pl. 1, fig. 1, pl. 2, figs. 1-3.

Pteroretis obliquus Oliwkiewicz-Miklasinska 2001, p. 173-176, pl. 2, figs. 4-8, pl. 3, figs. 1-3.

Retusotriletes? saturnus Richardson *et al.* 2001, p. 138, pl. 2, figs. 2,3, pl. 3, fig. 1.

Scyalospora asperverruca Beck & Strother 2002, p. 146, pl. 3, figs. 1-8.*

Scylaspora elegans Richardson *et al.* 2001, p. 142-144, pl. 5, figs. 2-4, pl. 6, fig. 8.

Setosisporites aculeatus Oshurkova 2001, p. 32, pl. 7, fig. 6.

Setosisporites parvipilosus Oshurkova 2001, p. 34-35, pl. 8, fig. 7.

Setosisporites pseudocornutus Oshurkova 2001, p. 32-33, pl. 8, figs. 1, 2.

Setosisporites styliferus Oshurkova 2001, p. 35, pl. 8, fig. 8.

Sporites ellipsoideus Oshurkova 2001, p. 53, pl. 14, fig. 6.

Sporites rotundtus Oshurkova 2001, p. 54, pl. 14, figs. 7-9.

Verruciretusispora loboziakii Higgs *et al.* 2002, p. 145-148, pl. 1, figs. 1-5, 9, 11.

Verrucosisporites loboziakii Marshall 2002, p. 203-205, pl. 2, figs 1-3, 6.

Nomenclatural changes

Genera

Species

Aneurospora richardsonii (Rodriguez) Richardson *et al.* 2001

[Recombination of *Streelispora richardsonii* Rodriguez 1983]

Ambitisporites warringtonii (Richardson & Lister) Richardson *et al.* 2001

[Recombination of *Retusotriletes warringtonii* Richardson & Lister 1969]

Ambitisporites? eslae (Cramer & Diez) Richardson *et al.* 2001

[Recombination of *Retusotriletes eslae* Cramer & Diez 1975]

Aphazonatisporites fallax (Dijkstra) Oshurkova 2001

[Recombination of *Triletes fallax* Dijkstra & Pierart 1957]

Aphazonatisporites major (Ischenko & Semenova) Oshurkova 2001

[Recombination of *Megaapiculati major* Ischenko & Semenova 1962]

Aphazonatisporites trilobatus (Dijkstra) Oshurkova 2001

[Recombination of *Triletes trilobatus* Dijkstra & Pierart 1957]

Chelinospora hemiesferica (Cramer & Diez) Richardson *et al.* 2001

[Recombination of *Iberoespora hemiesferica* Cramer & Diez 1975]

Chelinospora poecilomorpha (Richardson & Ioannides) Richardson *et al.* 2001

[Recombination of *Lophozonotriletes? poecilomorphus* Richardson & Ioannides 1973]

Chelinospora santpetrense (Rodriguez) Richardson *et al.* 2001

[Recombination of *Brochotriletes santpetrense* Cramer & Diez 1975]

Coronaspora subornata (Cramer & Diez) Richardson *et al.* 2001

[Recombination of *Amicosporites subornator* Cramer & Diez 1975]

Coronaspora infraornata (Rodriguez) Richardson *et al.* 2001

[Recombination of *Amocosporites infraornatus* Rodriguez 1978]

Crumenasporites monosaccus (Arkhangelskaya) Turnau 2002

[Recombination of *Hystrichosporites monosaccus* Arkhangeslkaya 1963]

Crumenasporites imperspicuus (Kedo) Turnau 2002

[Recombination of *Hymenozonotriletes imperspicuus* Kedo 1974]

Hamiapollenites bilateralis (Bharadwaj) Azcuy *et al.* 2002

[Recombination of *Bistraiatites bilateralis* Bharadwaj 1962]

Scylaspora chartulata (McGregor & Narbonne) Rubinstein & Steemans 2002

[Recombination of *Retusotriletes chartulatus* McGregor & Narbonne 1979]

Scylaspora vetusta (Rodriguez) Richardson *et al.* 2001

[Recombination of *Archaeozonotriletes vetustus* Rodriguez 1978]

Setosisporites levis (Ischenko & Semenova) Oshurkova 2001

[Recombination of *Megaligulati levis* Ischenko & Semenova 1962]

Tergobulasporites immensus (Nazarenko & Nekryata) Turnau 2002

[Recombination of *Hymenozonotriletes immensus* Nazarenko & Nekryata 1971]

Vermiverruspora rumneyi (Burgess & Richardson) Beck & Strother 2002

[Recombination of *Chelinospora rumneyi* Burgess & Richardson 1995]

9. Members' Changes of Address

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10. Gondwana Palynology

Dr. Roseline H. WEISS is pleased to announce the publication of a volume that includes 32 original papers from all parts of Gondwana. 7 of these (149 pp., 16 pls., etc.) concern palynomorphs from Australia, South America, India and Africa (see publications list elsewhere in this Newsletter):

WEISS, R.H., 2001. (ed.) *Contributions to Geology and Palaeontology of Gondwana in Honour of Helmut Wopfner*, I-X, 530 pp., 182 figs. B&W, 8 figs. colour, 39, tabs., 27 pls. B&W, 2 pls. colour, A4 - format, Geological Institute, University of Cologne. ISBN 3-934027-07-5.

The volume price is EUR64.00 plus postage and bank charges. For more information, please contact the editor at: aro.cologne@t-online.de

Dr. WEISS continues her research updating the "Bibliography of Gondwana and Perigondwana" and working on the "Cologne Database of Palynomorphs" - a stratigraphical and geographical index. She would like to ask all Spores and Pollen workers who are working on Gondwana and Perigondwana to send her their reprints immediately after publication. This information will be included in the "Bibliography of Gondwana and Perigondwana" and in the Index. Her postal address is:

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