



# PALYNNOS

Volume 16, No. 2 - December, 1993

The NEWSLETTER of the INTERNATIONAL FEDERATION of PALYNOLOGICAL SOCIETIES

## IFPS Mini-Council Meeting

On October 25, during the course of the 26th Annual AASP Meeting at Louisiana State University in Baton Rouge, LA, we had an IFPS Mini-Council Meeting in Room E234 of the Howe-Russell Geoscience Complex. In attendance were: Jim Carright, Arizona State University (President, IFPS); Owen Davis, University of Arizona (Secretary-Treasurer, IFPS); John Wrenn, Louisiana State University (Editor, PALYNNOS); Vaughn Bryant, Texas A&M University (AASP Councillor); Jan Jansonius, Institute of Sedimentary and Petroleum Geology, Calgary (AASP Councillor); and Lucy Edwards, U.S. Geological Survey (IFPS Representative to the International Union of Geological Sciences).

Jim Carright reported on the current status of several IFPS-affiliated societies that had been labeled "at risk" at the last IFPS Council meeting, held in connection with the 8th IPC at Aix-en-Provence in September of 1992. He conveyed his pleasure that the former Soviet Palynological Commission (SPC) has recently been reorganized as the Russian Palynological Commission (RPC) and have paid their past and present IFPS dues in full. Furthermore, he reported that many palynologists residing in several of the former republics of the USSR have joined the Russian palynology group. Two other societies have been restored to good standing in our Federation: the German Arbeitskreis für Palaobötanik und Palynologie (APP) and the Organization of Czech Palynologists (OCP). Unfortunately, the Palynological Society of India (PSI) had to be dropped from membership in IFPS for non-payment of dues over a number of years.

We next discussed the feasibility of publishing a new edition of the 1988 "World Directory of Palynologists" prior to the meeting of the 9th IPC in Houston in 1996. It was agreed that this project would be impossible if attempted with funds derived solely from the very modest IFPS treasury. All agreed that the project would require a considerable amount of funding from outside the IFPS. During discussion of this topic, it was pointed out that the International Association for Aerobiology (IAA), although not affiliated with IFPS, still had their 560 members listed in the original "World Directory". When Dr. Carright wrote the current president of IAA, Dr. F. T. M. Spieksma (Leiden), about the possibility of IAA joining IFPS, the response was negative. However, at the same time, Dr. Spieksma indicated his desire to have all the IAA members again listed should we produce a new edition of the "World Directory". The consensus of the Council members present was that there should be some form of "taxation for representation" of IAA members. It was proposed that if we include IAA members in the new

edition, those attending the 9th IPC would obtain a copy of the "World Directory" as part of their Congress registration fee. However, all other IAA members desiring a copy would have to pay a basic charge plus postage. A computer check of IAA members listed in the original edition of the directory by Owen Davis revealed that over 80% had no affiliation with any other society belonging to our Federation, thus IFPS membership should be encouraged.

Next, the Secretary-Treasurer, Owen Davis, gave his report on the current financial status of our Federation. Although three societies were delinquent in paying their 1993 dues, the results

of recent communications with these groups seem to indicate that at least two of them have already made arrangements to forward bank drafts. Nevertheless, even if all IFPS-affiliated societies pay their full dues based upon US\$1/member, the cost of publishing and mailing two copies of PALYNNOS annually exceeds our yearly income from dues.

Vaughn M. Bryant, Jr. (who with John Wrenn co-chairs the IXth IPC Organizing Committee) reported on plans for the 9th IPC that will be held in Houston from June 22-29, 1996.



IFPS Council members (left to right): Jim Carright, Vaughn M. Bryant, Jr., Owen Davis, Lucy Edwards and Jan Jansonius.

President Carright pointed out that, according to Art. 17 of the IFPS Constitution, amendments to the constitution can only be made at a plenary session of the General Assembly. However, amendments to the By-Laws may be made by the Council. Accordingly, in view of the present status of our treasury, the Officers and Councillors present unanimously recommended that the annual membership subscription be set at US\$1.50 per individual member. Furthermore, it was recommended that we state in our By-Laws that the affiliated societies will be placed on inactive status if they are more than 8 months delinquent in paying their annual dues. (N.B. - Article 5 of the IFPS Constitution states that dues are payable by May 1 of each year. Therefore, our recommendation designates the end of each calendar year as the date when delinquent societies are to be inactivated).

The above two recommended changes to the IFPA By-Laws are now being circulated to all Council members for their comments.

**James E. Carright**  
President, IFPS

**[Editors Note:** Both proposed amendments to the IFPS bylaws discussed above have been approved by the IFPS Councillors.]

## Organizational History Of ICP And IFPS

In December of 1976 the Fourth International Palynological Conference (4th IPC) convened at the Birbal Sahni Institute of Paleobotany in Lucknow, India. For many palynologists the most important event occurring at these meetings was the acceptance by the General Assembly of the draft constitution for the International Commission for Palynology (ICP) that had been proposed by Norman Hughes and his 12-person council. This constitution stipulated that the ICP should serve as an umbrella organization for regional, linguistic and national palynological societies; this concept directly opposed the proposal made at the 3rd IPC in Novosibirsk in 1971 that the ICP serve as an international organization comprised of individual palynologists.

Articles of the new ICP Constitution specified that each affiliated society should name or elect a Councillor to represent them on the ICP Council. If an affiliated society had a membership greater than 200, they were entitled to designate two Councillors. Furthermore, the President was to be elected by the Council for a 4-year term, but could not succeed him- or herself. Although the Constitution permits Councillors to serve

two successive 4-year terms, in actual practice some societies replace their representatives at irregular intervals. In the past, exercise of this option has caused some confusion regarding responsibilities of Councillors, as well as difficulty in determining eligibility for their succession and/or candidacy for the presidency in election years.

Accordingly, by digging through my correspondence files, as well as back copies of the ICP Newsletter and PALYNOS, I have attempted to delineate the Officers and Councillors of ICP (now IFPS) from the inception of the first constitution until the present time. If individual palynologists or society officers find errors in the following historical list, I would appreciate hearing from them in order to correct the records.

**James E. Canright**  
President, IFPS  
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YEARS / OFFICER	ICP OFFICERS		IFPS OFFICERS		
	1977-1980	1980-1984	1984-1988	1988-1992	1992-1996
<b>President</b>	Al Traverse	Claude Caratini	Colin McGregor	Henk Visscher	Jim Canright
<b>Sec./Treas.</b>	Geoff Norris	R. Jan du Chene	Dave Jarzen	Willem Punt	Owen Davis
<b>Editor</b>	Jim Canright	"Committee"	Jim Canright	Jim Canright	John Wrenn
<b>SOCIETY *</b>	<b>ICP COUNCILLORS</b>		<b>IFPS COUNCILLORS</b>		
<b>AASP</b>	Jim Canright Colin McGregor	Jim Canright Colin McGregor	Doug Nichols Harold Kaska	Doug Nichols Harold Kaska	Vaughn Bryant Jan Jansonius
<b>ALPP</b>	W. Volkheimer	Hiroko Makino	E. Romero (84-86) M. Morbelli (86-88)	T. Fairchild	M. Quattrocchio
<b>APLE</b>	Fritz Cramer	M. C. Risueno	M. C. Risueno	M. Rodriguez-Garcia	M. Rodriguez-Garcia
<b>APLF</b>	Claude Caratini J. Chateaufneuf	A. LeThomas J. L. Beaulieu	A. LeThomas G. Lachkar	A. LeThomas J. P. Suc	J. P. Suc J. L. Beaulieu
<b>APP</b>	Hilde Grebe	Walter Riegel	Walter Riegel	F. Schaarschmidt	Eckart Schrank
<b>BMS</b>	John Richardson	Michael Fisher	Michael Boulter	Michael Boulter	David Batten
<b>CAP</b>	John Utting	John Utting	John Utting	David Jarzen	David Jarzen
<b>CIMP</b>	Charles Downie Henk Visscher	Charles Downie Henk Visscher	Henk Visscher Bernard Owens	Bernard Owens Florentin Paris	G. Clayton Florentin Paris
<b>CPS</b>	Siwert Nilsson	Ulf Hafsten	Ulf Hafsten	K. Raunsgaard-Pedersen	K. Raunsgaard-Pedersen
<b>GPSBI</b>	D. B. Marchetti	D. B. Marchetti	M. Follieri	M. Follieri	D. Magri
<b>LSPG</b>	-----	-----	S. Blackmore (87-88)	S. Blackmore	M. Harley
<b>OCP</b>	B. Pacltova	B. Pacltova	B. Pacltova	M. Vavrdova	M. Vavrdova
<b>PK</b>	C. R. Jansen	C. R. Jansen	Willem Punt	Piet Cleveringa	Piet Cleveringa
<b>PPAA</b>	G. Playford	Basil Balme	B. Balme (84-86) J. Dodson (86-88)	J. Grindrod	M. MacPhail
<b>PSC</b>	Hsu Jen (=Xu Ren)	Hsu Jen	Hsu Jen	Song Zhichen	Song Zhichen
<b>PSI</b>	P.K.K. Nair	P.K.K. Nair	S. Chanda	S. Chanda	Inactivated, because of unpaid dues.
<b>PSL</b>	Vishnu-Mittre	K.M. Lele	B.S. Venkatachala (87-88)	B.S. Venkatachala	B.S. Venkatachala
<b>PSJ</b>	S. Tokunaga	S. Tokunaga	K. Takahashi	K. Takahashi (88-90) N. Fuji (91-92)	N. Fuji H. Miki-Hirosige
<b>PSP</b>	-----	-----	E. Turnau	E. Turnau (88-90) A. Sadowska (90-92)	A. Sadowska
<b>PTPB</b>	-----	-----	-----	Maurice Steel	Maurice Steel
<b>SPC and RPC</b>	L. V. Rovnina E. D. Zaklinskaya	L. V. Rovnina A. F. Chlonova	E. D. Zaklinskaya A. F. Chlonova	L. V. Rovnina M. V. Oshurkova	L. V. Rovnina M. V. Oshurkova (Representing RPC)
<b>TCP</b>	-----	V. Ediger	V. Ediger	Z. Bati	Z. Bati

\* See PALYNOS, Vol. 16, No. 1, page 3, for the full name of each society.

## Announcements



### IXth IPC: Request For Symposia And Field Trip Organizers

During June of 1996, the American Association of Stratigraphic Palynologists will host the IXth International Palynological Congress in Houston, Texas, U.S.A. If you are interested in organizing and chairing a symposium or a field trip for the IXth IPC Meeting, please contact one of us (Vaughn M. Bryant, Jr. and John H. Wrenn) as soon as possible about your ideas and plans. We would like this information now to help us to begin preparing a schedule, and to determine the total amount time and space to be allocated to symposia.

The First Circular for the IXth IPC will be mailed out during the summer of 1994. Symposium organizers will need to provide specific information requested by the First Circular at that time. However, even before then it would help us to know the following information:

- 1) Tentative title and subject matter of the proposed symposium.
- 2) Person or persons who will organize the symposium.
- 3) An estimated length of the symposium
- 4) Estimated number of participants.

Please contact one of us as soon as possible with the necessary information and estimates. See you at the IXth IPC.

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### Dr. B. S. Venkatachala Named Emeritus Scientist

Dr. B. S. Venkatachala, IFPS Councillor for the Palaeobotanical Society, Lucknow, has been awarded the position of Emeritus Scientist by the Council of Scientific and Industrial Research. The former Director of the Birbal Sahni Institute of Palaeobotany, is moving to the Wadia Institute of Himalayan

Geology to take up this position. Dr. B. S. Venkatachala reports that he will be working on Precambrian-Cambrian biota, but will continue his research into Gondwana and Cenozoic sediments as well. His new address is Wadia Institute of Himalayan Geology, 33, Gen. Mahadeo Singh Road, Dehra Dun 248 001, India

### Modern Pollen Slides Available

The Beijing Institute of Botany of the Chinese Academy of Sciences has collected many modern pollen from different regions of China and has prepared reference slide collections that are applicable to the study of forensic palynology, melissopalynology, East Asian Quaternary palynology and archeological palynology. Slides can be obtained for small a fee. Further details, including a list of the available pollen genera and species, can be obtained from Dr. Laiqiu Du, Paleobotany Section, Institute of Botany, Xiangshan Botanical Garden, Beijing, P.R. China; or Dr. Qinhuia Jiang, Department of Geology, Beijing University, Beijing 100871, P.R. China.

### Correction

The name of the new director of the Birbal Sahni Institute of Palaeobotany, Dr. R. S. Tiwari, was incorrectly spelled in PALYNOS, Vol. 16, No. 1, June 1993. The Editor extends his apologies to Dr. Tiwari for misspelling his name.

### Nomenclatural Notes

This fall marks a milestone in the history of the Fossil Plant Committee (FPC) of the International Association of Plant Taxonomy (IAPT). The Committee is paleobotany and palynology's official "voice" in the formulation of successive editions of the International Code for Botanical Nomenclature. This year, Bill Chaloner of Royal Holloway and New Bedford College, London, and Al Traverse of Pennsylvania State University are retiring as Chair (19 years) and Secretary (24 years), respectively, of this Committee. Bill is retiring completely from the Committee at his own request (but will remain involved temporarily as one of the compilers of the "Yokohama Code"). Al will continue to serve on the Committee as a regular member.

As the incoming Chair, I take this opportunity on behalf of all fossil plant researchers to thank Bill and Al for their largely unheralded, but vital, service over the years in representing our discipline in the official nomenclatural realm. In addition, J. Galtier and Li Xinxue are retiring from the Committee and are sincerely commended for their contributions to the Committee and fossil plant nomenclature.

The Yokohama Botanical Congress ratified me (R. A. Fensome) as Chairman and J. E. Skog as Secretary of the FPC. If any palynologists or paleobotanists have concerns about nomenclatural matters, or would just like to give feedback to the Committee, I encourage them to contact:  
Judy Skog (Department of Biology, George Mason University, Fairfax, Virginia 22030 USA; e-mail: jskog@gmuvax.gmu.edu); or me  
Rob Fensome, Geological Survey of Canada, P.O. Box 1006, Dartmouth, Nova Scotia, Canada B2Y 4A2;  
e-mail: rob=fensome@agcban1.bio.ns.ca).  
Also, we can provide a full list of Committee members and their addresses.

I intend to submit "Nomenclatural Notes" on a semi-regular basis for inclusion in PALYNOS. Future articles will explain the function of the Committee and discuss nomenclatural issues of potential significance to palynologists as they arise. This exercise will serve to keep you informed, and me on my toes, with regard to the latest happenings in TAXON and elsewhere.

In this article I draw readers' attention to three major results of the deliberations at the Yokohama Congress (with thanks to

Bill Chaloner for his "eyewitness" report and Al Traverse for his useful summary to the Committee).

1. Although the concept of English as a permissible language for taxonomic descriptions, along with Latin (which is now required for non-fossils) was soundly defeated, there was a motion from the floor by Bill Chaloner, based on our Committee's overwhelming support of the idea, that, for fossil plants only, beginning in 1996, descriptions must be in either English or Latin, instead of in any language, as at present. This motion was carried.

2. The proposals for NCU (Names in Current Use) lists of protected names were withdrawn or defeated. However, the proposals had much support and the concept is very much alive. The whole matter will be debated and new proposals submitted between now and the next Congress, which meets in August of 1999, in St. Louis, Missouri, USA.

3. In the future there will be required registration of new names. The mechanics of the process have yet to be worked out; hence, registration is not an issue that an author of new names appearing in the foreseeable future needs to worry about. But the formal word is that it's coming, possibly in the year 2000. For further information, "Watch This Space," or refer to TAXON.

**Rob Fensome**  
(Chair, FPC/IAPT)



Note from an East African newspaper:  
A new swimming pool is rapidly taking shape since the contractors have thrown in the bulk of their workers.

## Explosive Volcanism And Climate Change

The Past Global Changes/International Geosphere-Biosphere Programme (PAGES/IGBP) held a meeting in Tokyo on December 1-2, 1993 concerning the effects of explosive volcanism on climate change. As a result of that meeting, V. Hall (Belfast) and S. A. G. LeRoy (Bern) are gathering information on palynologists studying this topic. In particular, they seek the names and addresses of such palynologists, their research area(s), and a list of their publications.

The information will be used to:

- 1- put people in contact with each other and to promote the informal/formal exchange of information.
- 2- prepare a state of the art document on our understanding of the interaction between explosive volcanism and climate change.
- 3- make synoptic maps for selected eruptions from around the world. These would be eruptions that produced significant amounts of aerosols and whose effects are well-documented by other proxies, such as coral and tree-ring growth data.

These data may help address questions that were raised at the Tokyo meeting, including:

- 1- Can palynology discern plant recolonization of areas devastated by the tephra falls and how long does recolonization take?
- 2- What are the direct effects of the explosive forces?
- 3- Can palynology document climate changes caused by aerosols injected into the atmosphere by explosive volcanism? (Comparative studies of regional sites located within the area affected by the volcanic plume and sites outside the plume may provide the answers.)
- 4- How long do the effects of the volcanic explosions affect the atmosphere? (The time span is probably within the range of days to years. Obviously very high resolution, viz. yearly or even seasonal, is needed because historical observations record changes only during the 2-3 years following a major eruption.)

5- Is the effect of a volcanic explosion global, or restricted to the area of the particular volcano.

If you have information to contribute, please contact:

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## Meet The ALPP Councillor

**Mirta E. Quattrocchio**



Dr. Quattrocchio is an Associate Professor in the Geology Department, Universidad Nacional del Sur, Bahia Blanca, Buenos Aires Province, Argentina. Mirta is also an Independent Researcher at CONICET (Consejo Nacional de Investigaciones Cientificas y Técnicas). Her research interests are focused on palynologic systematics and paleoenvironments of the Mesozoic and Cenozoic

basins of Argentina. She has published nearly 50 scientific papers on her studies.

Mirta will be the IFPS Councillor for the ALPP until 1996. Her address is: Laboratorio De Palinologia, Catedra De Geologia Historica, Departamento De Geologia, Universidad Nacional Del Sur, San Juan 670, 8000 Bahia Blanca, Republica Argentina.

## Reports

### Joint SCCS/CIMP Meeting Held In Liege

The 1993 Field and General Meeting of the Subcommittee on Carboniferous Stratigraphy (SCCS) was held in conjunction with a meeting of the Commission Internationale de Microflore du Paléozoïque (CIMP) in the Department of Plant Palaeontology at the University of Liège, and at various field locations in Belgium, Germany and France during the period June 7-16, 1993. The attending members of the Subcommittee wish to place on record their gratitude to Professor Maurice Streeel and his colleagues in Belgium, Germany and France for their dedicated contributions towards the organization of this meeting.

Some 93 registrants participated in the meetings and/or the associated field inspections. Delegates registered from Argentina, Australia, Austria, Belgium, Belorussia, Canada, Czech Republic, France, Germany, Ireland, Poland, Spain, The

Netherlands, United Kingdom, Ukraine, and the United States of America. The program was as follows:

- Mon. 7 June: Field inspection of Late Famennian to Namurian in the eastern Ardenne, Belgium (Guidebook by R. Dreesen, E. Poty, M. Streeel & J. Thorez).  
Tue. 8 June: SCCS Meeting session in the University of Liège (24 papers).  
Wed. 9 June (a.m.): SCCS Meeting plus reports by Project Leaders.  
Wed. 9 June (p.m.): Field trip to Famennian reefal beds in the Vesdre Syncline, Eastern Ardenne, Belgium (Guidebook by R. Dreesen, J.M. Marion & E. Poty) or additional papers by CIMP members.  
Thu. 10 June (a.m.): Joint Meeting in University of Liège (8 papers).  
Thu. 10 (p.m.) to Sat. 12 June: Travel to Hohenlimburg-Reh for field inspection of the beds near the Devonian-Carboniferous Boundary in the Rhenish Massif, Germany (Guidebook by R. T. Becker, D. Korn, E. Paproth and M. Streeel).  
Mon. 14 to Wed. 16 June: Field inspection of the Pyrénées area: biostratigraphy, sedimentology, paleoenvironments and tectonics (Guidebook by M-F. Perret, J. J. Delvolve, C. Majeste-Menjoulas, J. Deramond, N. Gerrero, H. Schulze and J. Joseph).

Thirty-two papers were presented at the conference, including the papers listed below that included palynologic data. (\* Co-authors are not cited).

- Bless - Eustatic cycles around the D/C Boundary and the sedimentary and fossil record in Sauerland.  
Dusar - The early Carboniferous transgressions on the Brabant Massif (W. Flanders, Belgium).  
Hartkopf-Froder - Latest Devonian miospore assemblages from the Bergisch Gladbach-Paffrath syncline, Bergisches Land region, Germany.  
Higgs - Last results on miospores found near the D/C Boundary in Sauerland.  
Stemans - Miospores from the D/C transition in Hunan, SE China.  
Stempien - Assemblages de spores et zonation pres de la limite D/C, en Pomeranie, NW Pologne.  
Streeel - Quantitative palynology at the F/Fa and D/C boundaries in the Ardenne-Rhine Basin.  
Streeel - Miospores from late Famennian varves and tillites of Brazil.

This report is condensed from:

**Dr. B. A. Engel**  
Secretary  
Carboniferous Newsletter

### AASP Meets in Baton Rouge, LA

Louisiana State University in Baton Rouge, LA was the site of the 26th Annual Meeting of the American Association of Stratigraphic Palynologists, Inc. (October 23-29) More than 120 people from 17 countries gathered to hear 75 oral presentations and view 21 posters displays.

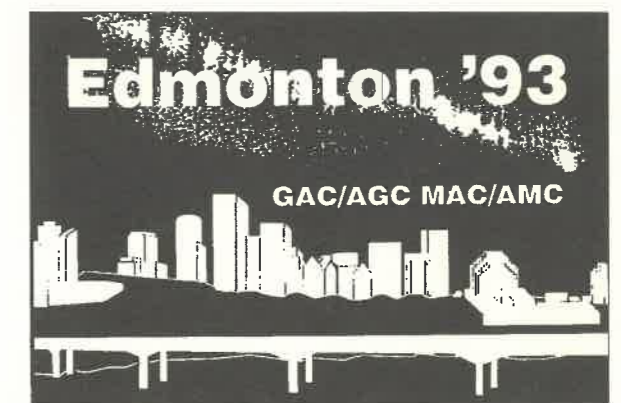
Two pre-meeting short courses (Sequence Stratigraphy given by Mac Jervy and Fungal Spores given by Bill Elsik) were given on Saturday and Sunday and were well attended. The attendees spoke very highly of both courses. A pre-meeting field trip to the Mississippi Delta was lead by Jim Coleman (Vice-Chancellor of LSU) and Jerry Kuecher (Department of Geology and Geophysics, LSU). The group had spectacular fall weather for a great trip on a crew boat down to the mouth of the Mississippi River.

The technical sessions and symposia ran from Monday through Thursday. The first technical session dealt with Facies Models And Sequence Stratigraphy and included nine papers. The 11 papers in the following General Session dealt with diverse

topics, including palynostratigraphy, uses of palynology in environmental remediation, climatic changes, and taxonomy.

The first of the two symposia was organized by Dr. Kam Biu-Liu and was entitled "Palynology and Climate." The nine papers dealt with modern pollen rain, Pleistocene climates in Brazil, the Great Plains and Rocky Mountains of the U. S., phytoliths as climatic indicators, modern pollen taphonomy in the Gulf of Mexico and techniques for detecting ancient earthquakes using palynology. The second symposium held during the meeting was "Palynology, Climate and Sequence Stratigraphy of the Pliocene". (See the separate report on this symposium elsewhere in this issue of PALYNOS.)

The final event of the meeting was a post-conference field trip into the swamps and marshes of Louisiana. This grand trip was led by Dr. Harry Roberts (Director, Coastal Studies Institute, LSU). In spite of the fact that it rained continuously, everyone enjoyed and learned from Harry's excellent presentation. Which is saying a great deal, because the heavy rains made it hard to determine whether the participants got wetter from the rain or from wading knee-to-waist deep in the swamps!



### C.A.P. Special Session: "Palynology In Canada: Palaeoecological And Stratigraphic Applications"

Palynology in Canada is alive and well and highly diverse! This was the conclusion a listener could draw after attending a Special Session on May 18th, 1993, at the Geological Association of Canada/Mineralogical Association of Canada (G.A.C./M.A.C.) Joint Annual Meeting held at the University of Alberta in Edmonton, Alberta. The Special Session, sponsored by C.A.P. (Canadian Association of Palynologists) and organized by David McIntyre (Geological Survey of Canada), Bert Van Helden (Chevron Canada Resources) and Alwynne Beaudoin (Provincial Museum of Alberta), comprised a full day of 17 presentations (16 oral and one poster).

Papers spanned geologic time from the Paleozoic to the present and highlighted aspects of palynology from acritarchs to *Artemisia*. A few examples display the variety of topics examined: tracing boreal forest treeline movement (MacDonald and Szeicz); examining a large palynological database to assess dinoflagellate diversities (MacRae and colleagues); using palynology to reevaluate a Cretaceous formation boundary (Hills and colleagues); hypothesizing environmental control, via shoreline morphology, on a fossil dinoflagellate (MacRae and Hills); evaluating the pollen assemblages from tephra chronostratigraphic markers in eastern Beringia (Schweger); and assessing the usefulness of palynology and plant macrofossils in identifying Holocene drought histories (Vance). Speakers illustrated many ways in which palynology can be applied to geoscience problems, from oil exploration (Burden and colleagues, Van Helden), characterizing unconformities

(Leckie and Burden) and formations (McIntyre and colleagues) to statistical analysis (Beaudoin) and the study of climatic change (Campbell and McAndrews, White and Ager). Presentations focused on all regions of Canada from the Atlantic (Williams and colleagues) to Pacific (Fedje) to Arctic (Kalgutkar) oceans, as expected for a country whose most striking characteristic is distance! Presenters, too, were from diverse circumstances and included participants from the oil industry, federal and provincial government agencies, and universities, both faculty and graduate students. Despite diminished funding, only one presentation (Head and colleagues) was cancelled because the speaker could not attend.

These eclectic presentations illustrated virtually the full spectrum of interests encompassed by C.A.P. The Association, founded in 1979, has a wide-ranging membership drawn from both stratigraphic and paleoecological palynology. At present, there are about ninety members. These include palynologists from almost all regions of Canada and about thirty overseas corresponding members. As such, the organization provides a useful forum for researchers in the various sub-disciplines of palynology to exchange ideas and gain a better appreciation for the problems and investigative approaches encountered in different fields. Most of the Association's communication is through its Newsletter, issued semi-annually, in May and December. The Newsletter includes palynological news and views, conference reports, research notes, and book reviews. For instance, the full list of presentations and abstracts from this Special Session has been printed in the C.A.P. Newsletter 16(1), 1993.

The Session in Edmonton provided a rare opportunity for C.A.P. members to meet face-to-face and discuss their research. I was delighted to meet some scientists I have only known through their published work. The meeting also supplied an excellent chance to show off palynology to our colleagues in other geoscience disciplines. In this objective, the session was highly successful for one focussed on such a specialized topic. It was attended by between 24 and 41 listeners, many from outside C.A.P., drawn from the almost 900 participants at the G.A.C./M.A.C. Meeting. It was a truly interesting and enjoyable day, both for presenters and listeners. I found it most refreshing and stimulating to listen to a whole series of fine papers. As shown by their enthusiastic participation in this Session, palynologists in Canada maintain a high level of energy and dedication to research.

Anyone interested in learning more about the Canadian Association of Palynologists or becoming a member may contact me for details.

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## Palynology, Climate And Sequence Stratigraphy Of The Pliocene

Palynology, Climate And Sequence Stratigraphy Of The Pliocene was an interdisciplinary, international symposium held October 27-28, 1993 under the auspices of the American Association of Stratigraphic Palynologists at their 26th Annual Meeting at Louisiana State University in Baton Rouge, Louisiana. The symposium was convened by J.H. Wrenn and J.-P. Suc. in order to focus attention on all aspects of the Pliocene geologic record and to emphasize the importance of that record for predicting future global climatic and geologic events. The Pliocene geologic record is the most appropriate for modeling potential major global warming, marine transgressions, changes in ocean circulation and so on. This is because the Pliocene was the last time that the Earth's climate was significantly warmer than it is today, and sea level high stands were more than 50% higher than those of the Pleistocene interglacials.

Approximately 110 people attended the symposium. Participants presented 27 papers and a number of poster displays on a variety of Pliocene topics, including sequence stratigraphy, geochronology, oxygen isotopes, and biostratigraphy based on palynology, mammals, foraminifers, diatoms, and paleobotany.

Ajoy J. Baksi opened the symposium by presenting a revised Pliocene Epoch time scale based on  $^{40}\text{Ar}/^{39}\text{Ar}$  ages for selected geomagnetic field reversals. His Age boundaries are approximately 7% older than previous geochronologic time scales, but accord well with those of the astrochronologic time scale (Hilgen, 1991) based on Milankovitch cyclicity. The revised boundary ages of Baksi are: Calabrian/Piacenzian - 1.76 Ma; Piacenzian/Zanclean - 3.61 Ma; Zanclean/Messinian - 5.77 Ma and indicate that the Pliocene was about 4.0 million years in duration.

Maria Cita Bianca provided a clear review of the status of Pliocene chronostratigraphic boundaries and subdivisions in the Mediterranean Basin and showed how they correlate with world Pliocene deposits.

C. V. Grazzini et al. presented a refined chronostratigraphic framework for the Western Mediterranean Sea based on foraminifera and oxygen isotopes from ODP Hole 653A. Her results indicate that this core can be used as a standard stratigraphic reference section for correlation in the Mediterranean Basin and that events documented in the core are correlative with those reported for the Atlantic Ocean.

These three papers provided a chronological framework for the other papers presented at the symposium.

Temperatures during the Middle Pliocene warm interval appear to have been 10-15° C higher than today at latitudes greater than 80° North and South. Results from the ongoing PRISM Project indicate that *Pinus* sp. was present in the northern high latitudes (R. Poore; R. S. Thompson), whereas *Nothofagus* sp. was present in the high southern latitudes of Antarctica (D. Harwood and P. N. Webb) during the middle Pliocene. Harwood and Webb also discussed the major middle Pliocene melt down of the Antarctic ice sheet that caused extensive coastal flooding world wide. The PRISM Group reported sea level high stands of up to 35 meters greater than today on the eastern coast of North America. G. Clauzon reported that an 80 meter sea level high stand occurred in the Mediterranean Basin between the flooding and end of the Third Order Cycles TB 3.4 and TB 3.5 boundary (the Zanclean/Piacenzian stages) of Haq et al. (1987).

Presentations on lacustrine, coastal and marine sediments indicated that major Pliocene environmental changes were recorded in all of these deposits and that it was possible to correlate the more discontinuous terrestrial record with them. The marine sections helped to validate interpretations based on the terrestrial deposits. Long marine records were reported for the Mediterranean and Black seas (M. B. Cita), off West Africa (S. A. G. LeRoy and L. Dupont), the Gulf of Mexico (W. C. Elsik), and the central Mediterranean Sea (Londeix et al.).

Long lacustrine records, covering most of the Neogene, rather than only the Pliocene, were presented for western North America (O. K. Davis et al.) and northern South America (V. M. Wijninga). Papers on the palynology of Pliocene terrestrial deposits were presented for the Western Mediterranean (Suc et al.), the Russian Plain (O. D. Naidina), the Black Sea Coast (T. V. Svetlitskaya) and southern France (S. A. G. LeRoy and G. Seret).

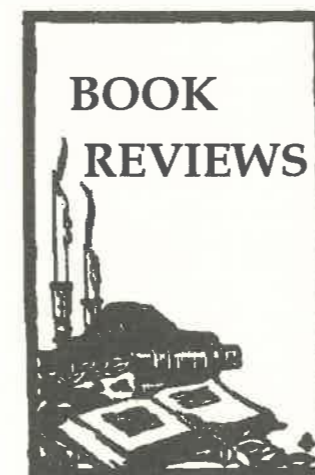
J. Agusti presented a mammalian biozonation for the Western Mediterranean that is very tightly controlled by palynology and paleomagnetic stratigraphy. J. P. Aguilar et al. reported a middle Pliocene warm interval based on mammal faunas fluctuations.

Floristic studies revealed that modern vegetation originated during the Pliocene. J.-P. Suc presented a comparative study of latitudinal vegetation gradients in the eastern Mediterranean. The gradients were very similar to those of today, except that some taxa are limited to the tropics or narrow refugia today.

Following formal presentations on the second day, a panel consisting of Maria Bianca Cita, Dick Poore, Jean-Pierre Suc and John Wrenn, led a round table discussion of major Pliocene events and their chronology for each of the geographic areas presented by the speakers. The "Working Group on Pliocene Stratigraphy and Climate" was established under the auspices of the Sub-Committee for Neogene Stratigraphy (Chaired by Dr. M. B. Cita) of the International Union of Geological Sciences. The new Working Group is co-chaired by R. S. Thompson and G. Clauzon.

The conveners of the symposium and S. A. G. LeRoy (PAGES/IGBP, Bern Switzerland) are working with the speakers to prepare a collection of papers on the Pliocene. This volume will contain papers presented at the meeting, as well as manuscripts reporting Pliocene research results that were not reported at the symposium. Potential authors are encouraged to contact John H. Wrenn, for further information.

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## A Comprehensive Study Of Neogene Sporomorphs In Hungary

by

Ester Nagy

(1993, 379pp., hard back, Geologica Hungarica, Series Palaeontologica, Fasciculus 53, Budapest, Hungary.)

This publication represents a compilation and summary of 40 years of palynological research by Dr. Ester Nagy. Even as a newcomer to the Neogene palynology of Europe, I was aware of Dr. Nagy's research and her contributions to the understanding of the Hungarian Neogene and the Paratethys realm. I am pleased to see her research compiled into one volume for ease of access and reference. As a recent attendee to the annual AASP meeting in Baton Rouge, I further understand the interest in discerning Neogene palynology and paleoclimates; thus the publishing of this volume is timely.

The first 140 pages of this volume are comprised of palynological data charts including lists of taxa, distribution tables of these taxa, and related lithologic columns and stratigraphic descriptions. The text is in Hungarian, but the charts and tables have English subtitles. The charts are arranged chronostratigraphically from Egerian through Pontian for easy reference. In total, there are 41 taxa distribution charts and tables. Owing to the diversity of taxa, a single distribution chart can occupy several pages, thus direct

comparisons between samples can be quite tedious. Similarly, because the lithologies and distribution charts are presented on separate figures, it is necessary to correlate taxa to lithology by means of sample numbers that occur on both types of figures. In this first chapter, which is the foundation of the volume, abundant and diverse data are presented. It would have been more convenient if all of the information (i.e. lithology, taxa and distribution charts) for a given locality had been included on a single figure, perhaps as a fold-out. However, given the abundance of these data, this may not have been economical or possible.

The next chapter documents the first occurrences of the palynofloral elements in the Paleogene or Neogene of Hungary, and provides insight into their climatic preference. This is further discussed in the following chapter where each taxa is described in the context of its botanical relationship and recent ecological and climatic range. The next few short chapters describe various aspects of the paleoclimates with corresponding interpretations. Two subsequent chapters deal with biostratigraphic aspects discerned from the data. Next, a comparison is made between the Hungarian data and that from surrounding European localities.

The Hungarian text concludes with a short chapter on systematics which erects two new genera (although in the volume's introduction, it states three new genera are described), several new species and combinations, and one emendation. The introduction states that 57 new species are described, but I was hardpressed to find anywhere near this number in the volume. My impression is that Dr. Nagy is referring to new species in all of her previous publications, rather than just those erected in this compilation. An extensive reference list and plates follow.

The last 60 pages of the volume are an abbreviated English translation of the text. Those of us who do not read Hungarian and must rely on the English text, will be forced to turn back 300 pages or so to the first chapter to find the appropriate figure. As a mild criticism, even though the publication may not have been directed towards an English-speaking audience, the translated text would have benefited greatly from a grammatical once-over. Nonetheless, the English text adequately conveys the many salient findings presented within this publication.

This hard cover book is printed on high-quality, matte paper, and the type and figures are clear and uniform. I found that after only minimal abuse -- page turning and spine-cracking -- a number of pages fell out easily, suggesting that the volume would not withstand day-to-day use. Since this volume is published in Hungary, I am uncertain as to its availability or how easy it would be to acquire from Budapest.

It is my impression that the quality of the scientific content of this publication is excellent. This 40 year, one volume summation of Dr. Nagy's research would be a worthy addition to the library of any researcher on European Neogene palynology or Neogene palynology in general. I applaud and enjoy the fact that Dr. Nagy has included all the raw data to support her findings. This has greatly added to the bulk of this volume and has no doubt increased production costs; however, scientific interpretations and discussion are presented too often without the support of raw data.

As a newcomer to the Neogene palynology of Europe, I find Dr. Nagy's compilation an excellent building block. With her scientific findings presented here, and the extensive reference list, I will greatly advance my knowledge of this subject.

Reviewed by:  
**Dr. Thomas Demchuk**  
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On the menu of a Swiss restaurant:  
Our wines leave you nothing to hope for.

## Outstanding Spore



The photograph (x425) shows the complex H-shaped laesura on the proximal surface of the spore *Riccia cavernosa* (Hoffm.) Raddi. The long arms of the laesura run parallel to obliquely with regards to each other. The connecting portion, or cross-piece, of the H-shaped laesura is considerably shorter, straight and trends roughly perpendicular to the longer arms of the H-shaped laesura. Characteristically, there are four proximal contact areas on the spores, supporting the belief that they develop in a pentad. Such

types of spores are produced in some Bryophytes and their production is very poor. Their amb varies from elliptical, subcircular to quadrangular. Spore sculpturing and overall size are similar to common trilete spores.

**Asha Gupta**  
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## Future Meetings

# - Indicates that this is the first notice of this meeting in PALYNOS.

April 3-8, 1994

# **Paleontology and Biostratigraphy (6th Congress)**, Trelew, Chubut, Patagonia, Argentina (Dr. N.R. Cúneo, Museo Paleontológico Egidio Feruglio, Av. 9 de Julio 955, Trelew Chubut, Argentina. Phone: 0965-35464; FAX: 0985-32658)

May 29-June 1, 1994

# **Glacial Cycles at High Latitudes - Their Effects on the Physical Environment (International Symposium)**, Fjaerland, Norway. (Dr. Anders Elverhoi, Project Administrator, Department of Geology, P.O. Box 1047, Blindern, 0316 Oslo, Norway. Phone: 47-22-85 66 56; FAX: 47-22-85-42 15)

June 19-22, 1994

# **Data and Models in Quaternary Research**, Minneapolis, MN. (Dr. Linda C.K. Shane, Geology and Geophysics, Limnological Research Center, 310 Pillsbury Drive S.E., Minneapolis, MN, 55455, U.S.A. Phone: 612-626-7889; FAX: 612-625-3819)

July 24-31, 1994

# **Cretaceous of Brazil (3rd Symposium and field trip)**, Rio Claro, Brazil. (Dimas Dias-Brito, Dept. of Sedimentary Geology, Rio Instituto de Geociências/Unesp, Rio Claro-SP 13506-230, Brazil. Phone: 55-0195-340327; FAX: 55-0195-242445)

August 21-26, 1994

# **Global Change and Arctic Terrestrial Ecosystems: An International Conference**, Trondheim, Norway. (Jarle I. Holten, Norwegian Institute for Nature Research, Tungasletta 2, N-7005 Trondheim, Norway. Phone: 47-7-580500; FAX: 47-7-915433)

August 28-31, 1994

# **Permian Stratigraphy, Environments and Resources (1st International Symposium)**, Guiyang, Guizhou, China. (Dr. Wang Xiang-dong, Secretariat of Organizing Committee for ISP-1994, Laboratory of Palaeobiology and Stratigraphy, Nanjing Institute of Geology and Palaeontology, Chi-Ming-Ssu, Nanjing, 210008 China. Phone: 86-25-714443; FAX: 86-25-712207)



September, 1994

# **X Simposio de Palinologia - APLE, Valencia, Spain.** Sessions will be held on pollen biology, actuopalynology, paleopalynology, melitopalynology, and aeropalynology. (Isabel Mateu Andrés, Departamento Biología Vegetal, Facultad de Biología, C/ Dr. Moliner, 50. E-46100 Burjassot, Valencia, España. Phone: 96-386-43-74; FAX: 96-386-43-72)

September 19-24, 1994

# **4th Paleobotanical-Palynological Conference**, Heerlen, The Netherlands. (Dr. G.F.W. Herengreen C/O Geological Survey of the Netherlands, P.O. Box 157, 2000 AD Haarlem, The Netherlands. FAX: 31-23-401-754)

October 15-26, 1994

# **Jurassic Stratigraphy (4th International Congress)**, Mendoza-Neuquen, Argentina. (Dr. A.C. Riccardi, C.C. 886, 1900 La Plata, Argentina. Phone: 54-21-39125; FAX: 54-21-530189)

November 2-4, 1994

# **27th Annual Meeting of the American Association of Stratigraphic Palynologists**, College Station, Texas, U.S.A. Symposia, Posters, Workshop. (Dr. Vaughn M. Bryant, Jr., Department of Anthropology, Texas A. & M. University, College Station, TX, 77843 U.S.A. Phone: 409-845-5242; FAX: 409-845-4070)



December 3-10, 1994

# **First International Symposium "Biostratigraphy of Oil and Gas Basins"**, St. Petersburg, Russia. (Dr. O.A. Sochevanova, General Secretary, VNIGRI, Liteiny 39, St. Petersburg 191104, Russia. Phone: 7-812-275-7145; FAX: 7-812-273-73-87)

August 28-September 2, 1995

**THE XIII INTERNATIONAL CONGRESS ON CARBONIFEROUS-PERMIAN (XIII ICC-P)**, Kraków, Poland. (Sonia Dybova-Jachowicz, Panstwowy Instytut Geologiczny, Oddział Górnolaski, 1 Królowej Jadwigi, 41-200 Sosnowiec, Poland. Phone: 48 32 66 20 36 (38); FAX 48 32 66 55 22)

October 10-14, 1995

# **28th Annual Meeting of the American Association of Stratigraphic Palynologists** at Ottawa, Ontario, Canada. Symposia, Technical Sessions, Posters, Field Trip. (Ms. Susan A. Jarzen, Canadian Museum of Nature, P.O. Box 3443, Station "D", Ottawa, Ontario, Canada, K1P 6P4; FAX: 613-954-4724)

June 22-29, 1996

**9TH INTERNATIONAL PALYNOLOGICAL CONGRESS**, Marriott Hotel, Houston, Texas, U.S.A. Host society: American Association of Stratigraphic Palynologists, Inc. (Dr. Vaughn M. Bryant, Jr., Department of Anthropology, Texas A. & M. University, College Station, TX, 77843, U.S.A.; Phone: 409-845-5242; FAX: 409-845-4070; or, Dr. John H. Wrenn, Center for Excellence in Palynology, Department of Geology and Geophysics, Louisiana State University, Baton Rouge, LA 70803, U.S.A.. Phone: 504-388-4683; E-Mail: glwrenn@lsuvm.sncc.lsu.edu FAX: 504-388-2302)



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