

10-3 November 1972

Commission Internationale de Microflore du Paléozoïque.

(3) - C.I.M.P. NEWSLETTER - NOVEMBER, 1972.

CONTENTS;



Commission Internationale de Microflore du Paléozoïque

Note concerning working groups on systematic revision of
spores and pollen grains.

It is the task of commissions to produce critical, authoritative analyses, documents or guides which may be applied in future work or decisions. CIMP works toward this through a number of working groups holding discussion sessions at various meetings and engaging in a broad exchange of material. In the wider sense of palynological systematics several working groups had originally been set up dealing with individual genera or form groups - mainly from the Upper Carboniferous - in order to eliminate unnecessary synonymies and extraneous species and thus elicit their stratigraphic and palaeofloristic significance. Five of these working groups (i.e. "Lycospora", "Knoxisporites", "Verrucosporites", "Monolete Genera" and "Morphography") have completed their work which is either published or prepared for publication. Three others (i.e. "Megaspore Genera", "Cavate Genera" and "Florinites") are still at work, while the fate of some is presently uncertain. Since their establishment activities of CIMP members have broadened considerably. In continuing and renewing the systematic revision work of CIMP it will be desirable to follow previous successes, but to pay increased attention to Devonian, Lower Carboniferous and Permo-Triassic taxa.

It is intended to use the 10th general assembly of the CIMP at Boussens, France (Sept. 12-15, 1973) to bring together palynologists of common taxonomic concerns into new viable working groups. As a preparatory step this note is sent out as an appeal to all palynologists interested or engaged in CIMP activities to consider their options in cooperating in CIMP working groups on systematic revisions and to sample their suggestions for topics. To coordinate these we would like to receive at first as many suggestions from as many CIMP members as possible. Therefore, please, check answers on the attached sheet and add comments to any extent you like or can and return it by Febr. 1, 1973. We shall then attempt to extract the most promising topics and recommend them at Boussens. Suggestions concerning Permo-Triassic taxa will be coordinated with the symposium on Permo-Triassic palynology at the Boussens meeting.

C.I.M.P. Newsletter, November 1972

Questionnaire

Name:

Address:

Please, return by Febr. 1, 1973 to:

Dr.M.Streel	or:	Dr.W.Riegel
Université 7, place du XX Août		Geologisches Institut
<u>B 4000 Liege, Belgium</u>		<u>34 Göttingen</u>
		Berliner Str.28 ,Germany

1. Indicate the stratigraphic range of your major interests:

- | | |
|-----------------------------------|--------------------------|
| Upper Silurian to Middle Devonian | <input type="checkbox"/> |
| Upper Devonian | <input type="checkbox"/> |
| Lower Carboniferous | <input type="checkbox"/> |
| Upper Carboniferous | <input type="checkbox"/> |
| Permo-Triassic | <input type="checkbox"/> |

2. Do you think working groups should be concerned with

- | | |
|----------------------------------|--------------------------|
| Species groups with special | <input type="checkbox"/> |
| stratigraphic significance | <input type="checkbox"/> |
| Individual genera | <input type="checkbox"/> |
| Groups of related genera | <input type="checkbox"/> |
| Larger taxonomic units (specify) | <input type="checkbox"/> |

3. Are you interested in the systematic revision of the following taxa:

- | | |
|---|--------------------------|
| Vallatisporites (suggestion Neves,Streel) | <input type="checkbox"/> |
| Archaeozonotrilites (suggestion Owens) | <input type="checkbox"/> |
| Geminospora (suggestion Owens) | <input type="checkbox"/> |
| Dibolischporites (suggestion Riegel) | <input type="checkbox"/> |
| Hystricosporites (suggestion Riegel) | <input type="checkbox"/> |

4. Please, list any number of taxa or groups which you consider worthy or in need of revision:

5. Comments:

C.I.M.P. SYMPOSIUM ON PERMIAN AND TRIASSIC STRATIGRAPHY OF EUROPE, BOUSSENS 1973

To the Possessors of Type-material of Permian
and Triassic Palynological Taxa

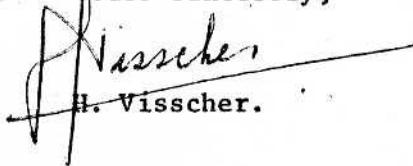
A C.I.M.P. Symposium on Permian and Triassic stratigraphy of Europe will be held at Boussens (Dept. Haute Garonne, France) September 1973 (see announcements in C.I.M.P. Newsletter, February and July 1972). The basic philosophy behind the organization of the symposium is that we should attempt to analyze the impact of the acceptance of palynological data on modern regional Permian and Triassic stratigraphy.

Because of the crying need for thorough morphological and taxonomic work on Permian and Triassic spores and pollen grains of presumed stratigraphical importance, several palynologists have emphasized the desirability of bringing together a fairly complete collection of type-material of Permian and Triassic palynological taxa.

Such a collection can only be realized when the various individuals or institutions who have type-material at their disposal are willing to cooperate by either taking slides with them to Boussens or lending type-material to the C.I.M.P. Secretariat.

For this reason we invite you to cooperate to a successful realization of this important aspect of the Boussens meeting.

Yours sincerely,



H. Visscher.

Utrecht, October 1972.

Please complete and return to:

H. Visscher
Laboratory of Palaeobotany and Palynology
Heidelberglaan 2,
De Uithof
Utrecht - The Netherlands

The undersigned,

Name:
Address:

has at his disposal palynological type-material described in the following publications on Permian and Triassic palynology of Europe (author + year of publication):

- 0 He intends to participate in the Symposium on Permian and Triassic stratigraphy at Boussens, and will take the above type-material with him.
- 0 He is not intending to participate but is willing to lend the type-material to the C.I.M.P. Secretariat under the following conditions:
- 0 He agrees the type-material to be photographed and diffused in the C.I.M.P. collection of colour transparencies of palynological types.

Date:

Signature:

C.I.M.P. SYMPOSIUM ON PERMIAN AND TRIASSIC STRATIGRAPHY OF EUROPE, BOUSSENS 1973

To the Contributors to the Symposium

It appears to be essential for the further organization of the C.I.M.P. Symposium on Permian and Triassic Stratigraphy of Europe (Boussens 1973; see announcements in C.I.M.P. Newsletter, February and July 1972) to have at our disposal a complete set of abstracts of papers by the end of this year.

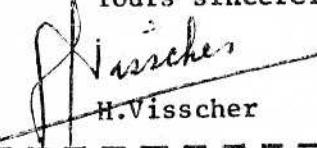
Contributors are therefore requested to submit a title and an abstract before January 1, 1973.

The abstract should be informative rather than merely indicative of the general content of the paper. Figures should be included if they are vital to proper evaluation of a paper's merit. Detailed and comprehensive abstracts will facilitate (1) the arrangement of papers by logical topic, (2) the accomodation of the maximum possible numbers of papers, and (3) the preparations concerning the publication of the papers.

The Review of Palaeobotany and Palynology will be the publishing medium of the Symposium proceedings. We anticipate that a double issue will be devoted entirely to papers on Permian and Triassic palynology. Details about the editorial policy and the format for final manuscript will be forwarded to those who respond to the present note.

Submission of an abstract after January 1, 1973, does not longer guarantee that the paper will be allotted a place on the Symposium program.

Yours sincerely,



H. Visscher

Utrecht, October 1972.

Please complete and return before January 1, 1973 to:

H.Visscher
 Laboratory of Palaeobotany and Palynology
 Heidelberglaan 2,
 De Uithof
Utrecht - The Netherlands

The undersigned,

Name:.....

Address:.....

intends to contribute to the C.I.M.P. Symposium on Permian and Triassic Stratigraphy, Boussens 1973, the following paper:

title:.....

An abstract of this paper has been attached or will be forwarded separately before January 1, 1973.

Time required for presenting the above paper: minutes.

Date:.....

Signature:.....

A manuscript red cross here acknowledges the reception of your annual (1972) contribution.

In case, your payment has not been recorded, please inform immediately the General Secretary.

Please send your contribution to the C.I.M.P. for 1972 :

150 Belgian francs

- directly to the "Société Générale de Banque" at Liège, Belgium for the "Commission Internationale de Microflore du Paléozoïque" C.I.M.P. compte N° 240.0770 536-69.
- indirectly by postal check (virement postal) to the "Compte 446 de la Société Générale de Banque" at Liège, Belgium (with the same mention and N° as above on that part of the check reaching the Bank).
- or, for overseas members, indirectly by a check of US dollars 4.00* sent to the General Secretary with the following form.

* to cover the heavy fees needed for recovering the amount of these checks.

NAME :

to be sent back to : Dr. M. STREEL
Secretary General of the CIMP
Paléobotanique et Paléopalynologie
Université, 7, Place du XX Août
B - 4000 - LIEGE, Belgium.

ADDRESS :

- wish to receive the next CIMP Newsletters.

- has enclosed a check of activities.

as a contribution to 1972 CIMP

Present research fields :

PLEASE, USE THIS FORM

ONLY, IF YOUR NAME IS NOT INCLUDED IN THE MEMBERSHIP DIRECTORY.

OR, IF YOU WISH TO CORRECT YOUR NAME, ADDRESS AND/OR PRESENT RESEARCH FIELDS.

AND/OR, TO ACCOMPANY YOUR CHECK.

A list of 77 members who have mentionned a specific activity in one or several systems within the Paleozoic Era or near its boundaries.

TENTATIVE LIST OF MEMBERS WITH A SPECIFIC PRESENT INTEREST IN PALEOZOIC PALYNOLOGY.															
PRECAMBRIAN		CAMBRIAN		ORDOVICIAN		SILURIAN		DEVONIAN		DINANTIAN	SILESIAN	PENNSYLVANIAN	PERMIAN	TRIAS	
										G O N D W A N A	G O N D W A N A	G O N D W A N A	G O N D W A N A		
Muir	Gandin	Cramer	Brideaux	Alpern	Alpern	Adloff	Brideaux			Konzalová	Barss	Dunay			
	Konzalová	Kalvacheva	Da Costa	Barss	Barss	Morbey	Konzalová			Martin	Harris	Harris			
	Martin	Martin	Dricot	Neville	Brack		Canright			Vanguestaine	Canright	Canright			
	Vanguestaine		Canright				Clayton			Clayton	Doubinger	Doubinger			
			Clayton								Clendening	Clendening			
											Frederiksen	Frederiksen			
											Del Rio	Del Rio			
											Eames	Helby			
											Dolby	Dolby			
											Gueim	Herngreen			
											Lange	Górecka			
											Górecka	Górecka			
											Laufeld	Grebe			
											Laufeld	Grebe			
											Tabbert	Kimyai			
											McGregor	Legault			
											McGregor	McGregor			
											Demaret	Lachkar			
											Mishell	Latcheva			
											Mishell	Mishell			
											Moreau	Menéndez			
											Potter	Meyen			
											Potter	Meyen			
											Tabbert	Loboziak			
											McGregor	Neves			
											McGregor	Neves			
											Demaret	Rauscher			
											Mishell	Nieves			
											Moreau	Nieves			
											Potter	Oschurkova			
											Potter	Oschurkova			
											Mishell	Owens			
											Mishell	Owens			
											Richardson	Pierart			
											Richardson	Richardson			
											Playford	Playford			
											Sanders	Sanders			
											Schaarschmidt	Schaarschmidt			
											Stoum	Stoum			
											Streel	Streel			
											Sullivan	Sullivan			
											Traverse	Traverse			
											Visscher	Visscher			
											Wood	Wood			

have
in addition
interest

POST-TRIAS
Palynology

36

6

have
in addition
interest

POST-TRIAS
Palynology

31

31

have
in addition
interest

POST-TRIAS
Palynology

36

31



MEMBERSHIP DIRECTORY

with present* research fields.

1972

* as of November 15, 1972.

DR. ADLOFF M.C.
Centre de Sédimentologie et Géochimie
rue Blessig, 1,

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Trias dans l'Est de la France, en bordure
du Massif Central (Ardèche) et au Portugal.

Dr. B. ALPERN
Centre d'Etudes et de Recherches
des Charbonnages de France
B.P. 27,
60 - CREIL FRANCE

Palynologie et Géochimie du Carbonifère.

M.S. BARSS,
Eastern Petroleum Geology Section
Atlantic Geoscience Center, Geol. Surv.,
Bedford Institute Dartmouth
Nova Scotia CANADA.

Upper Paleozoic - Spores.

Dr. D.J. BATTEN,
Roberson Research International Ltd
Ty'n Y Coed, Llanrhos, Llandudno,

NORTH WALES GREAT BRITAIN.

British early Cretaceous Palynology/
Paleobotany. Mesozoic Palynology.

Dr. D. BEJU
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Palynologie du Paléozifique et du Mésozoïque
de la Plateforme Moësienne.

Edward B. BLAZEY, PHD
ST. Norbert College
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Paleobotany, Palynology, Systematics.

Dr. G.T. BOALCH
The Laboratory citadel Hill,
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Marine Phytoplankton, especially
Dinoflagellates and their cysts, and
members of the Diatomaceae and
Prasinophyceae.

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SHEILA D. BRACK
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Pennsylvanian age of North America
Coal Ball Flora.

Dr. WAYNE W. BRIDEAUX
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Calgary, T2L 2A7,
Alberta, CANADA

Mesozoic and Tertiary miospores ; Mesozoic
dinoflagellates ; Devonian spores. Spore
nomenclature of all eras.

Dr. JACK D. BURGESS
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P.O. Box 36506

HOUSTON, TEXAS 11036, USA

Organic matter alteration, Dinoflagellates
ranges, stratigraphic palynology.

Dr. JESS R. BUSHMAN
268 ESC BGU
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PROVO, UTAH, U.S.A.

Sedimentation. Archeological palynology.
Cretaceous palynology.

Dr. JAMES E. CANRIGHT
Departement of Botany
Arizona State University

Tempe, ARIZONA 85281 U.S.A.

Palynology in Arizona : 1) M(?) to Upper
Devonian ; 2) Penn.-Permian boundary ;
3) Upper Cretaceous and Tertiary. (Miocene o
Taiwan).

CHATEAUNEUF J. J.
B.R.G.M. SGN/GEO
B.P. 6009

Paleozoic Sahara et Espagne. Mésozoïque
et Cénozoïque de France. Quaternaire
d'Aquitaine (France).

45. ORLEANS 02 FRANCE

Dr. Carol Ann CHMURA
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15221 DALLAS, TEXAS
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Cretaceous Angiosperm Pollen.

RAYMOND A. CHRISTOPHER
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AUBURN, ALABAMA 36830
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Early angiosperm pollen of coastal plain
of U.S. ; Jurassic miospores from Alabama.

Dr. G. CLAYTON
 Dept. of Geology, Univ. of Sheffield
 Yappin St, SHEFFIELD S13JD,
 ENGLAND

DR. JOHN A. CLENDENING
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 P.O. BOX 3092

Houston, TEXAS 77001 USA.

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 Direction Exploration,
 20, rue Jean Jaures,
 92 - PUTEAUX FRANCE

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 Université de Lille
 I.E.R. des Sciences de la Terre (s n 5)
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 59 VILLENEUVE d'ASCQ FRANCE

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 20.000 RIO DE JANEIRO, Flamengo
 BRASIL.

Mr. Barrie DALE
 Woods Hole Oceanographic Institution
 WOODS HOLE, MASS. 02543 - USA

Dr. Aymar DA SILVA SANTOS
 rua Marechal Floriano, 37
 Bloco Apt 205
 Bairro-Canela
 Salvador BAHIA BRASIL

British and Irish Devonian and Carboniferous
 mio- and megaspores. Electron microscopy.

Paleozoic palynology, principally
 Pennsylvanian-Permian palynology.

Chitinozoaires. Géochimie de la matière
 organique.

Cretaceous and Jurassic calcareous
 Nannoplankton.

Etudes palynologiques des formations
 schisteuses du bassin houiller du Nord
 de la France.

Oligo-elements in Kerogen ; Silurian-
 Ordovician phytoplankton stratigraphy.

Brazilian Silurian and Devonian microfossil
 assemblages, with special emphasis on
 Chitinozoans and Tasmanitids.

Modern dinoflagellates - their paleontolo-
 gical significance.

Mrs. M. DEMARET-FAIRON
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ITHACA, N. Y. 14850, USA.

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2. rue Dr. Degaire
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3000 LOUVAIN, BELGIQUE.

Dr. Warren S. DRUGG
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P. O. Box 446
LA HABRA, CALIFORNIA 90631, USA

Etude de la mégaflore fossile du Dévonien belge. Palynologie du Dévonien inférieur et moyen.

Palynologie du Jurassique et du Crétacé.

Stratigraphie du Permo-Carbonifère de la Sardaigne.

Acritarches du Paléozoïque (Trémadocien à Dévonien supérieur).

Devonian-Carboniferous spores. Permian and Triassic pollen, spores and acritarchs. Upper Devonian and Lower Carboniferous stratigraphy.

Palynologie du Permo-Trias européen, du Crétacé-Tertiaire sud-américain.

Acritarchs and Chitinozoa (Cambrian to Devonian).

Acritarches du Dévonien belge.
Palynologie du Plio-Pléistocène belge.

Primarily dinoflagellates, Jurassic to Recent. Interested in Spores and Pollen.

Triassic Palynology.

Paleozoic Palynology. Devonian-Mississippian and Pennsylvanian.

Mr. Robert E. DUNAY
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Mr. L.E. EAMES
AMOCO Production LD.
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Dr. EISENACK Alfred
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Chitinozoa.

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Special interests in Cenozoic palynology,
diatoms, and fossil fungal spores.

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Lab. of Palaeobotany and Palynology
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UTRECHT - THE NETHERLANDS.

Upper Triassic and Lower Jurassic. Pollen
and Spore Assemblages of Western Europe.

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Dinoflagellates and acritarchs.

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Gondwana Upper Palaeozoic palynology and
stratigraphy.

Dr. Charles J. FELIX
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Devonian and Triassic of South America.
Cretaceous of West Africa.

Dr. FOURNIER George Richard
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HOUSTON, TEXAS 77036
U.S.A.

Upper Paleozoic Stratigraphy.
Palynological statistics.

Dr. Norman O. FREDERIKSEN
San DIEGO State College
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SAN DIEGO, CALIFORNIA 92115
U.S.A.

Stratigraphie du Cambrien de la Sardaigne.

Dott. Anna CANDIN
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Palynologie du Carbonifère.

Dr. Teresa GORECKA
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WROCŁAW 5
POLOGNE

Microorganismes (Acritarcha) de l'Ordovicien
et du Dévonien de la Pologne.

Dr. Hanna GORKA
Warsaw University, Inst. of Geology
WARSZAWA 22, POLAND
al. Zwirki i Wigury 93

Dr. Hilde GREBE
415 KREFELD
Postfach 1080
Geol. Landesamt
GERMANY WEST

Spores from the Carboniferous.
Spores from the Lower Cretaceous.

Dr. Peter H. GRIGGS
Texaco Trinidad, Inc
Pointe-à-Pierre
TRINIDAD
WEST INDIES

Mainly Tertiary and Mesozoic biostratigraphy
in Central and South America with some
general biostratigraphic work in the
Paleozoic.

DR. GRIGNANI Dario
AGIP - SPA. - GEOL.
B.P. 4174
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Chitinozoaires - Palynologie du Paléocène
et Mésozoïque.

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Carboniferous Palynology of the
British Isles.

Dr. SUJOY GUPTA
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East Texas State University
COMMERCE, TEXAS 75428
U.S.A.

Pennsylvanian and Permian palynology
special reference to the biostratigraphy
of Texas, U.S.A.

Dr. John W. HALL
Dept. of Botany
University of Minnesota
MINNEAPOLIS MN 55455
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Cretaceous Palynology.

Dr. Rex HARLAND
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ENGLAND

Mesozoic and Cainozoic organic-walled
microplankton.

Dr. WAYNE K. HARRIS
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SOUTH AUSTRALIA, 5000

Permian palynology, South Australia;
Upper Mesozoic and early Tertiary palynology.

Dr. Richard W. HEDLUND
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P.O. Box 591
TULSA, OKLAHOMA 74102 U.S.A.

Mesozoic-Tertiary of Austral Basin,
Argentina. Jurassic Palynology.

Dr. HELBY Robin
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Box R 216 Royal Exchange
SYDNEY 2000 AUSTRALIA

Permian-Triassic palynology.
Early Cretaceous palynology.

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Rijks Geologische Dienst
Spaarne 17, B.P. 157
HAARLEM
NEDERLAND

Palynomorphs and dinoflagellates (Zechst.-U. Cretaceous). Offshore drilling activities and contin. borings. Brazilian Cretaceous palynomorphs.

Dr. Aharon HOROWITZ
Tel Aviv University
Inst. of Archaeology
TEL AVIV ISRAEL
Prof. N. HUGHES
Department of Geology, Sedgwick Museum
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Permian, Triassic and Quaternary palynology.

Dr. J.JANSONIUS
Imperial Oil Ltd
339 -50th Avenue SE
CALGARY ALTA T2G 2B3
CANADA

1. U.Cretaceous-L.Tertiary palynology (angiosperm pollen, spores, fungi, dinoflagellates).
2. Scolecodontes (Ordovician-Tertiary).
3. Chitinozoa (not active).
4. Classification of fossil spores on generic and suprageneric level.

Mr. S. JARDINE
Elf - r. e.
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FRANCE

Palynologie du Paléozoïque et du Mésozoïque.

Dr. W.A.M JENKINS
339 50th Avenue Southeast
CALGARY, ALBERTA T2G 2B3
CANADA

U. Jurassic and Cretaceous spores and dinoflagellates. Stratigraphy in eastern North America, particularly on the Grand Banks and the Nova Scotia shelf.

Dr. C.D. JOHNSON
Atlantic Richfield Co
Geol. Sci.Grp.
Box 2819
DALLAS, TEXAS 75221 U.S.A.

Jurassic dinoflagellates, Canadian arctic islands ; Tertiary palynology, northern Alaska.

Dr. Eugene L. JONES
Mobil North Sea Ltd
Mobil House
54/60 Victoria St.
LONDON SW1 ENGLAND

Stratigraphic palynology in general.

Dr. Milada KALIBOVÁ-KAISEŘOVÁ
Ustrédm Ústav Geologický
Valostranské 19
PRAHA 1
TCHECOSLOVAKIE

Systématique et stratigraphie des spores du Carbonifère et Permien.

Dr. KALVACHEVA Rossitsa
Geological Institute, ul 36
SOFIA 13
BULGARIA

Acritarchs, Ordovician, W. Balkan mountain, Bulgaria.

Dr. Göran KJELLSTRÖM
Geological Survey of Sweden
S 104 05 STOCKHOLM
SUEDE

Ordovician-Silurian acritarchs from Balto-Scandia, Sweden. Cretaceous dinoflagellates from Scandia, Sweden. Catalogue project for fossil dinoflagellates (published by Schweizerbart'sche Verlag).

Dr. Elizabeth M. KEMP
Dept. Geology, Florida State
University
TALLAHASSEE FLORIDA 32306
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Palynology of Southern Hemisphere. Late Palaeozoic glacial deposits : Lower Cretaceous palynology ; palynology and palaeoclimates of Antarctica.

Dr. ABBAS KIMYAI
Department of Geology,
Faculty of Science,
University of Tehran
TEHRAN IRAN

Palynology of Devonian-L.Carboniferous, Jurassic and Cretaceous.

Dr. KONZALOVA-MAZANCOVA Magda
Geological Institute
Academy of Sciences
PRAHA 2 - VINOHRADSKA 93
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Micropaleontology of the Precambrian-Cambrian (Acritarchs). Upper Cretaceous assemblages of microfossils.

Dr. KREMP G.O.W.
The University of Arizona
Dept. of Geochronology
TUCSON, ARIZONA 85721
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Computerization of Palynology ; Spore morphography ; Paleoplant-geography.

Dr. G. LACHKAR
Laboratoire de Micropaléontologie
Faculté des Sciences
191, rue St Jacques - PARIS - FRANCE.

Palynologie du Carbonifère

Dr. Frédérico Waldemar LANGE
Rue Honório de Barros 27/701
RIO DE JANEIRO, CB--ZC-01
BRASIL

Silurian and Devonian Chitinozoa, Acritarchs and Scolecodonts. Precambrian microfossils in general.

Dr. LANZONI ENZO
AGIP - Lab. di Paleontologia
20097 S. DONATO MILANESE
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Palynologie du Paléozoïque.

Dr. IATCHEVA
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Palynologie du Paléozoïque.

Dr. SVEN LAUFELD
Instituto of Palaeontology
Solvegatan 13
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Chitinozoa. Lower Palaeozoic stratigraphy, mainly Silurian, Ordovician-Silurian boundary, Silurian-Devonian boundary.

Dr. Arthur E. LEBLANC
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P.O Box 36506
HOUSTON, TEXAS 77036
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Paleozoic, Mesozoic and Cenozoic palynology
(stratigraphic) of Canada.

Dr. Jocelyne A. LEGAULT
Dept. Geological Sciences
University of Saskatchewan
SASKATOON, SASKATCHEWAN
CANADA

Paleozoic palynology, Devonian chitinozoa,
Acritarcha - Spores.

Dr. Stanislas LOBOZIAK
Univ. des Sciences et Techniques
de Lille
UER Sciences de la Terre, B.P. 35
59 VILLENEUVE D'ASCQ, FRANCE

Palynologie du Houiller français et espagnol
(méga- et miospores).

Dr. Mc GREGOR
Geological Survey of Canada
601 Booth Street
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CANADA

Silurian-Devonian palynology.

Dr. S.B MANUM
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NORWAY

Karroo paleobotany/palynology. Mesozoic
paleobotany/palynology. N. Norway,
Barents Sea, Svalbard.

Dr. MARTIN-de HEINZELIN Francine
Dépt. de Paléontologie I.R.Sc.N.B.
31, rue Vautier
1040 - BRUXELLES

Microfossiles à paroi organique d'âge
cambrien supérieur à ordovicien - Massif du
Brabant (Belgique) et Montagne Noire (Heraul
France).

Dr. Carlos Alberto MENENDEZ
Museo Argentino de Ciencias Natur.
Av. Angel Gallardo 470
BUENOS AIRES
ARGENTINA

Palaeopalynology (Permian and Carboniferous
microfloras).

Dr. S.V MEYEN
USSR,
109017 MOSCOW-17
Pyzhevsky per, 7
Geol. Inst. Acad. Sci. USSR

Carboniferous and Permian plants of Russian
platform and Siberia ; megafossils, spores
from sporangia, dispersed cuticles.

Dr. William D. MEYERS
Cities Service. Inc, Exploration &
Production Research
Box 50408 TULSA OKLAHOMA
U.S.A.

Mesozoic and Paleozoic stratigraphy.

Dr. MILLEPIED Pierre
C.F.P.
114, Cours du Maréchal Gallieni
33 TALENCE FRANCE

Tertiaire inférieur de Mer du Nord et tous problèmes Paléozoïques.

Dr. Marcel E. MILLIOUD
Esso Production Research Co.
P.O. Box 2189
HOUSTON, TEXAS 77001
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Mesozoïques dinoflagelles , Paleozoïques acritarchs.

Dr. David R. MISHELL
Research Center
Amoco Production Company
P.O. Box 591
TULSA, OKLAHOMA 74102 U.S.A.

Biostratigraphic palynology of Ordovician to Carboniferous, plus Mesozoic and Tertiary of S. America.

Dr. MOREAU-BENOIT Arlette
Lab. Paléobotanique, 12
12, rue Cuvier
PARIS 5e FRANCE

Spores et Chitinozoaires du Siluro-Dévonien du Massif Armorican. Spores et Chitinozoaires du Paléozoïque de Libye.

Mr. S.J. MORBEY
Dept. of Geology
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ENGLAND

Upper Triassic (Rhaetian) Palynology of Western Europe.

Dr. Margaret MORTIMER
Geology Department
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O.R.S. and L. Carb. stratigraphical palynology. Triassic, Jurassic stratigraphical palynology.

Dr. M.D. MUIR
Geology Dept., Royal School of Mines
Prince Consort Road
LONDON SW7 2BP, U.K.
ENGLAND

Precambrian microfossils. Scanning electron microscopy (inc. analytical techniques) of spores and pollen.

Dr Esther NAGY
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Tertiary Palynology and planctonic organisms.

Dr. G.K.B. NAVALE
Birbal Sahni Institute
53, University Road
LUCKNOW INDIA

Palaeozoic Palynology {of coal
Tertiary Palynology } {of lignites }

Dr. R. NEVES
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Devonian and Carboniferous Palynology.

Dr. R.S.W. NEVILLE
Robertson Research International Ltd
Tyn y Coed, LLANRHOS,
LLAIDUDNO, N. WALES,
GREAT BRITAIN

Lower Carboniferous Palynology. Lower
Palaeozoic Chitinozoa.

Dr. Karl R. NEWMAN
Colorado School of Mines
Department of Geology
GOLDEN, COLORADO 80401
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1. Cretaceous-Tertiary palynology, Western North America.
2. Geology of coal and oil shale in Colorado, U.S.A.

Dr. Emanuel J. NIEVES
Univ. Central, Facultad de Ingenieria
ESc. de Geologia, Minas y Metalurgia
Apartado 50926
CARACAS 105, VENEZUELA

Flora of the Upper Paleozoic and Lower Permian of Venezuela.

Dr. Geoffrey NORRIS
Dept. of Geology,
University of Toronto,
TORONTO 181, ONTARIO
CANADA

Mesozoic miospores and microplankton.

Dr. Richard E. NORRIS
Dept. of Botany,
Univ. of Wash., SEATTLE
Washington 98195, U.S.A.

Extant Dinoflagellates and Prasinophyceae.
Extant siliceous Chrysophyceae and extant Coccoliths.

Dr. OSCHURKOVA MAYA Vladimirovna
All Union Geol. Research Institute
Ministry Geology. (VSEGEI).
LENINGRAD . 199026.
Sredniy pr. 72-b. USSR

Carboniferous mega- and microspores from Tunguss province (coal basins : Karaganda, Minusa, Tungusska).

Mr. OTAZO-BOZO N.
Paléobotanique et Paléopalynologie
Université.
7, Place du XX Août
B - 4000 - LIEGE (Belgique).

Palynologie du Dévonien.

Dr. Bernard OWENS
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ENGLAND

- 1) Devonian and Carboniferous palynology in U.K.
- 2) Palynology of proposed boundary stratotypes of Upper Namurian and Westphalian in U.K.
- 3) Palynology of M. and U. Devonian from Arctic Canada.

Dr. Kenneth M. PIEL
Union Oil Co. of California
Research Center
P.O. Box 76
BREA, CALIFORNIA 92621 U.S.A.

Cretaceous and Tertiary spores, pollen and Dinoflagellates; modern pollen.

Dr. P. PIERART
I.R.S.N.B.
31, rue Vautier
1040 BRUXELLES
BELGIQUE.

Palynologie du Gondwana et chimie de la sporopollenine.

Dr. Richard L. PIERCE
Mobil Field Research Lab.,
P.O. Box 900
DALLAS, TEXAS 75221
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Cenozoic, Mesozoic and Paleozoic pollen stratigraphy of Arctic areas.

Dr. G. PLAYFORD
Dept. of Geology & Mineralogy
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BRISBANE, QLD. 4067.
AUSTRALIA

Upper Devonian-Carboniferous palynology ;
Cretaceous palynology.

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CANADA

Palynology and Mesozoic and Tertiary sediment
Study of all aspects of organic matter
preserved in sediments.

Prof. Dr. R. POTONIE
Geol. Land., Nordrhein-Westfalen
Steinstrasse, 137,
Postfach 1080
KREFELD 415 R.F.A.

Synopsis der Gattungen der Sporae dispersae
und Sporae in situ.

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P.O. Box 2819
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Lower Paleozoics of the Canadian Arctic
Islands, Canada. Devonian of the Northwest
Territories, Canada.

Dr. RAUSCHER
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1, rue Blessig
67 - STRASBOURG
FRANCE

Chitinozoaires - Acritarches - Spores.
Paléozoïque inférieur.

Dr. John B. RICHARDSON
Dept. of Geology, Kings College
University of London
Strand,
LONDON WC 2 ENGLAND

Silurian - Devonian - Lower Carboniferous.
Palynology and Biostratigraphy.

Dr. Walter RIEGEL
Geol.-Palaeontologisches Institut
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R.F.A.

Spores, acritarchs, Devonian, Germany.
Dinoflagellate cysts, Cretaceous, Spain.

Dr. Jerome RUBIN
455 Lakeville Lane
AST MEADOW N.Y. 11554
U.S.A.

Dinoflagellates of the Eocene of the New Jersey coastal plain.

Dr Jaime RUEDA-GAXIOLA
nuel Gonzalez 246-f-711
M XICO 3, D.F.
MEKIQUE

Recherche palynologique et planctologique des sédiments mésozoïques du Mexique. Division palyno-stratigraphique du Jurassique. Rédaction d'un livre de texte sur la Paléopalynologie pour les étudiants de langue espagnole.

Dr. Robert B. SANDERS
.S. Geological Survey
P.O. Box 259
ANCHORAGE, ALASKA, 95501

Pre-Devonian and Devonian palynology.
(Tertiary palynology).

Prof. William A.S. SARJEANT
Dept. of Geological Sciences
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SASKATOON CANADA

Principally Mesozoic (Dinoflagellates and Acritarchs) : but generally interested in acritarchs throughout their geological range.

Dr. F. SCHAAERSCHMIDT
Forachungsintitut Senckenberg
6 - FRANKFURT am MAIN
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R.F.A.

Makro- und Mikroflora, Devon, Mesozoikum.

Dr. Manfred E. SCHMID
Geologische Bundesanstalt
Rasmussenstrasse 23
A-1031 WIEN 3
AUSTRIA

Chitinozoa, Acritarcha pp., (Foraminifera).

Mme J. SCHUMACKER-LAMBRY
Paléobotanique et Paléopalynologie
Université
7, Place du XX Août
B - 4000 - LIEGE (Belgique)

Etude des microfossiles végétaux du Tertiaire inférieur de Belgique.

Dr. A.H.V. SMITH
National Coal Board
Yorkshire Regional Lab.,
Golden Smithies Lane, Wath-on-Dearne
Nr. Rotherham, YORKSHIRE, GREAT BRITAIN.

Carboniferous stratigraphy.

Dr. SOMERS Yvonne
INIEK, Bois du Val Benoît
rue du Chera
4000 LIEGE - BELGIQUE.

Westphalien Campine (Belgique).

Dr. Howard E. STACY
Humble Oil Ref. Co.
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HOUSTON, TEXAS 77001
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Mesozoic and Tertiary Palynology, especially Cretaceous and Jurassic dinoflagellates.

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Cretaceous-Tertiary palynology, Marine palynology.

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Palynology service work, chiefly Devonian-Carboniferous.

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Fossil spores and pollen.
Dinoflagellates and Acritarchs.

Dr. M. STREEL
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4000 LIEGE BELGIQUE.

Devonian and Lower Carboniferous spores of Ardenno-Rhine basins.
Palynology of recent deposits on the Belgian coast.

Dr. Herbert J. SULLIVAN
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444 7th Ave. SW
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Devonian and Mississippian palynology.
Organic Geochemistry.

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-Has been active in the Ordovician-Silurian of arctic Islands and Greenland.
-Now : Mesozoic and Tertiary of the Arctic.

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