

# IOP NEWSLETTER 11

## INTERNATIONAL ORGANIZATION OF PALAEOBOTANY

INTERNATIONAL UNION OF BIOLOGICAL SCIENCES  
-SECTION FOR PALAEOBOTANY  
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FEBRUARY 1980

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PLEASE MAIL NEWS AND CORRESPONDENCE TO YOUR REGIONAL REPRESENTATIVE OR TO THE SECRETARY FOR THE NEXT (SUMMER) NEWSLETTER 12. The views expressed in the newsletters are those of its correspondents and do not necessarily reflect the policy of IOP.

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### IOP NEWS

#### IOP BUSINESS MEETINGS 1980

Under Article V 1 b of our constitution this is to give notice of two meetings of the General Assembly of IOP in England this summer. They have been included within the programmes of 5IPC at Cambridge and of the International Palaeobotanical Conference at Reading.

Cambridge: Wednesday July 2nd, early evening - to discuss the future relationships of IOP with other international organizations such as ICP (see IOP newsletter 6, April 1978, page 2).

Reading: Thursday July 10th, early evening - to discuss the effectiveness of the operation of the new IOP constitution adopted since the last General Assembly at Leningrad, and to make early arrangements for the role of IOP at the next International Botanical Congress in Sydney 1981.

#### INTERNATIONAL PALAEOBOTANICAL CONFERENCE, ENGLAND, JULY 1980

The details of this meeting, sponsored by IOP, were announced in IOP newsletters 9 and 10 last year. There are more than 100 registrants at the meeting, all of whom should by now have received a copy of the final circular from the conference secretary, Peter Crane, Department of Botany, University of Reading, Whiteknights, Reading RG6 2AS, England. All those making presentations at the meeting must submit abstracts of no more than 200 words to Peter Crane at Reading to arrive before March 31st 1980.

## IOP-PALEOSERVICES PRIZE

The process of selection outlined in the last IOP Newsletter 10 has not succeeded in nominating a recipient for 1979. This is due to the very great problems of reaching decisions through international air mail and the various times that letters take in delivery. The matter will be discussed at the IOP business meetings in England this summer, when a more satisfactory system of selection can be worked out.

## ANNUAL ACCOUNTS 1979

The finances of IOP continue to demand subsidy from the postal budgets of most of our regional representatives' institutions. Despite the award of a subvention for \$500 from IUBS and major savings on postage and duplicating from the smaller format of the newsletters distributed by air mail, the accounts show another loss for the year ended December 31st 1979:

INCOME: 248 membership dues of \$4.00	992
IUBS subvention	500
	\$1,492
EXPENDITURE: envelopes & notepaper etc	150
typing costs	350
duplicating charges	370
postage (part)	650
	\$1,520

LOSS OVER 1979: \$28

Copies of the annual report for 1978 are available from the secretary; the annual report for 1979 should be available in March.

## BENEFITS OF MEMBERSHIP OF IOP

The list of documents which are distributed free of charge by surface mail to all paid up members of IOP continues to increase. Write to the secretary for your copy of the following:

- 1, Amsterdam 1935 Nomenclature definitions, Sprague 1948,
  - 2, Address list of over 300 palaeobotanists,
  - 3, Bibliography of angiosperm palaeobotany for 1978 (see page 6).
- Please suggest new items which might be copied and circulated in this way.

## PAYMENT OF DUES FOR 1980 (AND 1979)

More than 40 palaeobotanists who paid for 1978 have not yet sent their dues for 1979 and continue to receive the newsletters. These and all dues for 1980 should be paid before the end of February 1980. A payment form is included in this mailing of the newsletter if you owe money.

## NEWSLETTER CONTRIBUTIONS

This newsletter is substantially shorter than any other edition produced from London, since this time the secretary did not write to regional representatives to request copy. The impact of such letters decreases the more they are sent, and there is a danger that the newsletter will continue to fall short of its potential content. ALL PALAEOBOTANISTS THROUGHOUT THE WORLD are requested to consider submitting copy for future newsletters: it is upon you all that the future of this enterprise depends.

## 2ND NORTHEAST PALEOBOTANICAL CONFERENCE, HARVARD, OCTOBER 1979

The 28 participants at this conference represented 12 institutions and included 13 students. During the evening before the conference there was a general discussion on two topics of general interest. Pat Gensel asked for assistance in formulating guidelines for the evaluation of paleobotanical localities. This is to provide a basis for selecting certain sites that might be protected in the future (by such bodies as the Nature Conservancy and the Trustees of Reservations) and to provide a mechanism for agreeing on the value of a site before it is threatened. No conclusions on the necessary criteria were reached but it was agreed that each should write to Pat Gensel (Botany Department, University of North Carolina, Chapel Hill, North Carolina 27514, USA) with suggestions that might help her prepare a report. Henry Andrews introduced the second topic concerning the subject of copyrights on manuscripts, letters and pictures. He described some of the many difficulties involving historical material.

Ten papers were given at the conference:

B. Cornet, Houston. Upper Jurassic (ammonite dated) angiosperm pollen and its similarity to Late Triassic angiospermoid pollen. He traced the differentiation of certain morphological characteristics in a series of Triassic and Jurassic pollen grains which, in many cases, are similar in appearance to the grains of certain modern angiosperms.

G.S. Brush, Johns Hopkins University. Biostratigraphy of some Chesapeake Bay (estuarine) tributaries. She reviewed her work on the patterns of deposition of pollen in several estuaries along Chesapeake Bay. This involved aspects of pollen rain and sedimentation over the last 300 Ma.

M. Zavada, University of Connecticut. Palynology of some Cretaceous flysch deposits of Macedonia, Yugoslavia. The three small assemblages found are used to interpret the geological history of the area.

J. McClammer, Yale University. Thoughts on Tertiary climate. The flora of the Late Oligocene-Early Miocene Yaquina deposits of coastal Oregon was described and shown to have a strong endemic element and a marginally subtropical aspect.

P. Strother, Harvard University. Work with A. Traverse on dispersed Lower Silurian spores, banded tubes and cuticles was described. The diversity and morphology of these intriguing fossils was discussed and beautifully illustrated.

P. Bonamo & J.D. Grierson, State University N.Y. presented an exhaustive discussion of the morphology and variation in the spores of Leclerqia complexa, illustrated by s.e.m.'s. This included both differences in proximal and distal sculpture in the mature spores and variation arising during ontogeny.

H. Andrews, University of Connecticut, provided an excerpt from his forthcoming book on the history of palaeobotany. He discussed American palaeobotanists of the early 18th century and included a small and diverse group of people who possessed considerable insight on occasions and had great artistic talent on others.

E. Barghoorn, Harvard. Life in the Archean. His conclusion was that while some reports are open to considerable suspicion others are of almost incontestably biological origin.

P. Strother returned with an informal presentation of some fossils from the Late Precambrian of nw Greenland. These organisms occur in distinct 'communities', and through analogy to modern 'Sabkha' type mats, appeared to represent a cycle of evaporites and fresh and salt water incursions.

B.H. Tiffney, Yale University. Who's who in the Taonabcae (Theaceae) of the Tertiary of the northern hemisphere - a preliminary report. Preliminary results were presented from work being done in conjunction with E.M. Friis (Denmark), M. Collinson (UK), E. Knobloch (Czechoslovakia), H.J. Gregor (Germany) and M.C. Boulter. This involves a re-evaluation of the fossil record of seeds of some members of the Theaceae, including modern forms from Cleyera and Eurya. - from a report of the meeting by B.H. Tiffney.

PALAEONTOLOGICAL ASSOCIATION MEETING, CARDIFF, DECEMBER 1979

The annual Christmas meeting included five lectures on palaeobotany. Two were concerned with reproductive strategies and modes of dispersal. B.A. Thomas, London. Competition as an evolutionary stimulus in Carboniferous lepidophytes. The view that dioecious cone formation allowed complex megasporophyll units to evolve enabling wind dispersal of their large single megaspores was put forward.

W.G. Chaloner & A. Sherrin, London. Reproductive strategies of early land plants. An increase in size changes in Devonian and Carboniferous propagules was discussed as being a significant factor in the increasingly regional character of the late Palaeozoic floras because large seeds would have had more limited dispersal and a large capacity for regeneration under a closed canopy.

T.M. Windle, London. The occurrence and significance of megaspores and charophyte gyogonites in the Bathonian of s. England. In the Forest Marble Formation of Gloucestershire both megaspores and charophyte gyogonites which are usually found in freshwater faunas were confined to marine environments posing some palaeogeographical problems.

J.E. Ellis, London. Mariopterid plants from the Cumbrian Carboniferous. Species of Mariopteris Zeiller were illustrated and problems of interpreting isolated fragments as to their position on the frond and to distinguish between inter- and intraspecific variation were discussed using examples from one locality.

A.C. Scott, London. Palaeobotanical, palaeoecological and sedimentological studies of the Lower Carboniferous of the Kilpatrick Hills, Strathclyde. The plant bearing sections from the side of Loch Humphrey Bum were logged and studied in detail and tentative conclusions on the age, sedimentological sequence and palaeoecology were presented.

There were several palaeobotanical demonstrations including a display of Silurian and Devonian plants set out by D. Edwards (Cardiff - outside London at last) and her co-workers.

- from a report of the meeting by K. Logan, London.

ALPP, SAO PAULO, DECEMBER 1979

This was the second meeting of palaeobotanists and palynologists of the Asociacion Latinamericana de Paleobotanica y Palinologia (ALPP), and was organised by the Institute of Geosciences of Sao Paulo University and ALPP. 26 papers were presented during the three days of the conference:

J.H. Millan. Lepidodendrales do Eogondwana de Monte Mor.SP.

S. Archangelsky & J.C. Gamero. Primer hallazgo de palinomorfs permicos en la Cuenca del Colorado, Argentina.

O. Rösler. Raizes 'in situ' associadas a camadas de carvao da Bacia do Paraná.

H. Dueñas J. Palinología de los Sedimentos Cuaternarios de la Sabana de Bagotá.

B. de Oliveira. Nouveau genre Neomariopteridien fertile de la Flore a Glossopteris du Bassin de Paraná au Brésil.

- R.R. Andreis, M. Cazzulo-Klepzig, M. Guerra-Sommer & L. Ziemermann.  
Consideracoes sobre um afloramento fossilifero do Grupo Itararé, Fazenda Goulart, Francisquinho, Sao Jeronimo.
- N.M. da Costa Cruz. Estruturas Fósseis do Fosfato de Patos de Minas.
- E.C. Fittipaldi & O. Rösler. Caracteres cuticulares de Sementes da Formacao Rio Bonito no Estrado do Paraná (Permiano).
- O.M. Barth. Morfologia do Pólen de *Kielmeyera* (Guttiferae).
- M. Cazzulo-Klepzig, M. Guerra-Sommer, G.E. Bossi. Revisao Fitostratigráfica do Grupo Itararé no Rio Grande do Sul.
- M.A. Caccavari de Filice. Granos de polen de Vitáceas Argentinas.
- M.I. de Almeida Burjack & M. Marques Toigo. Caracterizacao Palinológica da Turfeira da Regiao de Aguas Claras.
- S.L. Jung & T.S. Melhem. Grao de Polen de *Tocoyena brasiliensis* MART. e *T. formosa* SCHUM. (Rubiaceae).
- R.R. Andreis, M. Cazzulo-Klepzig, M. Guerra-Sommer & M. Marques Toigo. Interpretacao Paleoambiental, e Estudo Paleobotanico e Palinológico do Grupo Itararé, na área de Faxinal, Guaiba, RS.
- T.S. Melhem & M. Fiuza de Melo. Palinotaxonomia das Sapotaceae.
- D. Sundaran. Observacoes Palinológicas sobre alguns sedimentos do Gondwana Inferior da Bacia do Paraná, Brasil.
- M. Bernades de Oliveira & R. Yoshida. Coniferófitas da 'Tafoflora Irapuá', Formacao Rio Bonito, Santa Catarina
- M.R. de Lima, V.J. Fulfaro & A. Bartorelli. Análise Palinológica de Sedimentos Cretáceos da Regiao de Marabá.
- A. Arai & O. Rösler. Pólen e Esporos associados a Megafósseis vegetais em Sao Joao do Triunfo, Paraná.
- M. Bernardes de Oliveira & O. Rösler. Lycophyta do Paleozóico do Chile.
- M.R. de Lima & D.A. Campos. Palinologia dos Folhelhas da Fazenda Muzinho, Florianópolis, Piauí.
- D. Mussa & P.R. Santos. Stratigraphy of the Iratí Formation, Sao Paulo.
- M. Silvestre & T. Melhem. Estudos Palinológicos das Bignoniaceae da Reserva Biológica do Parque Estadual do Ipiranga.
- M. Arai. Contribuicao dos Polens Estriados na Bioestratigrafia Neopaleozóica da Parte NE da Bacia do Paraná.
- M. Vitorino da Cruz & T.S. Melhem. Palinotaxonomia das Sapindaceae.
- T.R. Fairchild, S. Subacius & I. Karmann. Late Precambrian microfossils in silicified stromatolites from the Bambuí Group, near Sao Domingos, Goiás, Brazil.
- During the conference there were meetings of the Latin American branch of IAAP, the general assembly of the ALPP and of the working group for the Continental Carboniferous of the Gondwana area of South America.

## BIBLIOGRAPHIES

### FRANCE, BELGIQUE & SUISSE, 1976-8

The "Rapport sur la Paléobotanique et la Paleopalynologie" compiled by A. Lejal-Nicol is available from her at: Laboratoire de Paleobotanique, Université Pierre et Marie Curie, 12 Rue Cuvier, 75005 Paris, France. There are 40 pages of systematically arranged references as well as details of publications in press, authors' addresses and the names of laboratories.

BIBLIOGRAPHIE DES ARBEITSKREISES FÜR PALAEBOTANIK UND PALYNOLOGIE 1978  
Volume 37 of Cour.Forsch.-Inst.Senckenberg was published in Frankfurt am Main in July 1979 and contains Martin Sturm's 23 page compilation of mainly West Germany palaeobotany and palynology for 1978. It includes details of dissertations published that year as well as work in press and in progress. Copies can be obtained from Professor F. Schaarschmidt, Forschungsinstitut Senckenberg, Senckenberganlage 25, 6000 Frankfurt am Main, West Germany, price 18DM.

## BIBLIOGRAPHY OF ANGIOSPERM PALAEOBOTANY 1978

This was compiled under the auspices of the International Association for Angiosperm Palaeobotany by Gary Dolph and was published late last year. The 45 pages contain details of work in progress and in press together with a full list of publications of the members listed. Copies are free to paid-up members of IOP and can be obtained from the IOP secretary. They will be despatched by surface mail unless you enclose a cheque for £3.00 IN STERLING for air mail postage. North American members of IOP are asked to write for their copy to D. Dilcher, Plant Sciences, Indiana University, Bloomington, Indiana 47401 for free surface mail despatch.

## CARBONIFEROUS AND PERMIAN COMPRESSION FLORAS 1977-8

This 15 page list of references has been compiled by the International Working Group on Upper Paleozoic Compression Floras. It was assembled from the responses received from members and from other bibliographies and the entries were cut and pasted for printing. Details can be obtained from Dr H.W. Pfefferkorn, Department of Geology, University of Pennsylvania, Philadelphia, Pennsylvania 19174, USA.

OBITUARY - LUELLA WERESUB

IOP Newsletter 10 carried a book review of Kendrick's edited volume entitled "The Whole Fungus" - the review concentrated on two articles written by Pirozynski & Weresub. Dr Pirozynski has written: "Luella Weresub's untimely and unexpected death last October deprived the discipline of botanical nomenclature of a brilliant and dedicated worker. I lost a personal friend and irreplaceable source of advice and encouragement. I very much doubt that I have sufficient interest and expertise in the matters of nomenclature to continue with the kind of work we outlined in THE WHOLE FUNGUS. Nevertheless, I would appreciate and greatly value receiving pertinent comments from you and readers of the IOP Newsletter, should any be forthcoming."

NEWS OF OTHER ORGANIZATIONS

## ASOCIACION LATINAMERICANA DE PALEOBOTANICA Y PALINOLOGIA (ALPP)

The second and third newsletters of ALPP were issued during November 1979. Number 2 has a complete directory of all members while number 3 is the programme and abstracts of the second meeting of palaeobotanists and palynologists held at Sao Paulo University Brasil during December (see pages 4-5 of this IOP newsletter).

## INDIAN ASSOCIATION OF PALYNOSTRATIGRAPHERS (IAP)

The second newsletter of this new organization was issued during December 1979. It includes details of meetings, individual members, an abstracting service and the newly adopted constitution. Write to Janki Bhawan, 41/417, Narhi, Lucknow-226001, India, for details.

## ARBEITSKREIS FUR PALAEOBOTANIK UND PALYNOLOGIE (APP)

The next annual meeting of APP will be arranged by Professor L. Kappen (Eduard Buchner Strasse 3, D-8706 Hochberg, West Germany) from 27-9th March 1980 in Wurzburg, with a field trip to the classical Rhaetian-Liassic localities of the Bayreuth and Coburg area of southern Germany. Papers will be presented concerning Tertiary and Mesozoic megafossils and palynomorphs from southern Germany, as well as Palaeozoic acritarchs and stromatolites of Iberia and Africa. In the spring of 1981 it is intended to organise a joint meeting with the APLF in Strasbourg.

## GEOLOGICAL ASSOCIATION OF CANADA

This year's annual meeting will be held from 19-21 May at Dalhousie University in Halifax. There is to be a symposium on "coal - an inventory with reports on the properties of coal" and a special session on Mesozoic and Cenozoic palaeontology of the North Atlantic. Contact Dr G.L. Williams, Geological Survey of Canada, Box 1006, Dartmouth, Nova Scotia, Canada B2Y 4A2 for details.

## PALEOBOTANICAL SECTION, BOTANICAL SOCIETY OF AMERICA

The Isabel Cookson Paleobotanical Award committee, consisting of Tom Taylor, Andy Kasper and Don Tidwell, selected Bill Dimichele as the winner of the award for his report on "Distribution and evolution of Lepidodendron and Lepidophloios in Upper Carboniferous coal swamps".

## A NEW PALAEOBOTANICAL PUBLICATION?

Dr R.H. Wagner, Geology Department, University of Sheffield, England adds his voice to that of Dr Anderson (IOP Newsletter 10) in advocating a palaeobotanical journal sponsored by IOP and incorporating the newsletter. "There are currently three international journals specifically designed to take palaeobotanical articles. Unfortunately these are all commercially instigated and rather expensive, almost prohibitively so when it comes to reprints. There is certainly room for a journal for palaeobotanists by palaeobotanists, at a cost which we can all afford.

"My suggestion is to follow the example of the Sedimentological Association and to approach a publisher for the half yearly publication of a well produced journal with good half-tone plates in A4 format, for which IOP could provide the clientele and editorial backup.

"Although the cost of an IOP sponsored palaeobotanical journal will certainly be higher than the present cost of the newsletter, it is likely that palaeobotanists are generally more eager to obtain a journal with a small newsletter content than a Newsletter on its own. Since reprints are a totally essential part of the scientific process these could then be made available at cost price."

## RIGHTS OF AUTHORSHIP

During the last six weeks the IOP secretary has received letters from four palaeobotanists questioning the rights of authorship of palaeobotanical ideas. Two of these refer directly to newsletter items and the other two to so called "pirated" ideas which appear in recent formal publications. Clearly such practices cannot be controlled solely by the checks of editors or referees.

The major purpose of newsletters such as this is to stimulate exchange, not caution. It would be horrible if it were to have the reverse effect.

## BOOK REVIEW

PALINOLOGIA, NUMERO EXTRAORDINARIO 1. F.H. Cramer (Ed.), 1979, M.d.C.R. Diez and M. Gutierrez. 505pp, 2,500 pesetas.

This volume represents a compilation of papers presented at the first International Symposium on Palynology, held at Léon, Spain, during September 1977. Of the 42 papers included, 23 are in English, 12 in French and 7 in Spanish.

The type face employed is small, but sharp and legible, on glossy paper. Substitution of a light-faced type for the traditional italics used for genus and species names offers no improvement, since it is more difficult to read than the text. The plate reproduction is mediocre since the poor contrast leaves many pictures on a grey background. Some authors jammed as many as 40 pictures into one plate further detracting from the quality of the illustrations.

24 of the papers are concerned with Paleozoic palynomorphs, 18 with spores, 7 with chitinozoans, 5 each with dinoflagellates and acritarchs, 4 with assemblages and 1 each with modern pollen and hydrocarbon diagenesis. The paper by de Coninck concerning the ethics of the palynologist in the petroleum industry should have been published elsewhere. A newsletter would have been better.

The overwhelming emphasis is on biostratigraphy, with taxonomic work included as appropriate. The quality of papers is variable, but most do contain adequate index maps and range charts. There are correlations from every Phanerozoic period.

Of particular interest is the report by Lejal-Nicol and Moreau-Benoit of highly diverse spore assemblages from the Lower Devonian of Libya. They suggest that many of the spore taxa belong to major plant groups previously unreported from such old rocks. None of their spores are illustrated.

Also noteworthy is the publication by Tasch and Hutter of a plate figuring chitinozoans from the Pennsylvanian of Kansas. But the quality of illustration is so poor that it is difficult to determine whether the taxa described are truly new or merely recycled from older rocks. Only three contributions deal exclusively with palaeoecology. Mebradu distinguishes 3 miospore assemblages from the Upper Jurassic of England which he correlates with depositional distance from the ancient shoreline. Wright discusses the palaeoecology of Devonian chitinozoans and van der Zwan & van Veen present a very interesting summary of their work on the Upper Devonian-Lower Carboniferous of Ireland, in which they differentiate alluvial fan from flood plain spore assemblages. They suggest that these represent separate plant communities. The use of extensive spore size distribution data in order to evaluate possible winnowing during deposition enhances the credibility of their results.

The sharpest criticism which can be levelled at this volume concerns the poor quality of the editing. Indeed, there is little indication that it was edited at all. The numbering of plates and arrangement of tables varies considerably from paper to paper. Most plate descriptions are little more than lists of taxa, some including neither locality information nor sample numbers. Two authors fail to give magnifications for their plate figures. Others fail to list date and authorship of cited genera and species, and only two include the derivation of new taxonomic names. Species descriptions are not uniformly separated by generic headings. There are other errors that should have been judiciously edited, including bad nomenclature, incorrect spellings, a plate figure underexposed on one side, a one sentence description of a new species, and an abstract not related to the text of the paper. Paris's paper is nothing more than a two page summary of a work to be published in full in Palaeontographica. If the new journal "Palinologia" is not edited more carefully a subscription will be well worth passing up.

The palynologist interested in biostratigraphy will find much useful information in this work. Taxonomists will require access to a copy though palaeoecologists and general interest readers are best advised to spend their money elsewhere.

G. KENT COLBATH

Geology Department, University of Oregon, USA.