



A.A.S.P. NEWSLETTER

Published Quarterly by the American Association of Stratigraphic Palynologists Inc.

December 2004 Volume 37, Number 4

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A.A.S.P.

American Association of Stratigraphic Palynologists Inc.

The American Association of Stratigraphic Palynologists, Inc. - AASP - was established in 1967 by a group of 31 founding members to promote the science of palynology. Today AASP has a world-wide membership of about 800 and is run by an executive comprising an elected Board of Directors and subsidiary boards and committees. AASP welcomes new members.

The AASP Foundation publishes the journal *Palynology* (annually), the AASP Newsletter (quarterly), and the AASP Contributions Series (mostly monographs, issued irregularly), as well as several books and miscellaneous items. AASP organises an Annual Meeting which usually includes a field trip, a business luncheon, social events, and technical sessions where research results are presented on all aspects of palynology.

AASP Scientific Medal recipients

Professor William R. Evitt (awarded 1982)
Professor William G. Chaloner (awarded 1984)
Dr. Lewis E. Stover (awarded 1988)
Dr. Graham Lee Williams (awarded 1996)
Dr. Hans Gocht (awarded 1996)
Dr. Svein B. Manum (awarded 2002)
Professor Barrie Dale (awarded 2004)
Dr. David Wall (awarded 2004)

AASP Honorary Members

Professor Dr. Alfred Eisenack (elected 1975)
Dr. William S. Hoffmeister (elected 1975)
Professor Leonard R. Wilson (elected 1975)
Professor Knut Faegri (elected 1977)
Professor Charles Downie (elected 1982)
Professor William R. Evitt (elected 1989)
Professor Lucy M. Cranwell (elected 1989)
Dr. Tamara F. Vozzhennikova (elected 1990)
Professor Aureal T. Cross (elected 1991)
Dr. Robert T. Clarke (awarded 2002)

AASP Board of Directors Award recipient

Dr. Robert T. Clarke (awarded 1994)

Teaching medal recipients

Professor Aureal T. Cross (awarded 1999)
Professor Alfred Traverse (awarded 2001)

AASP Distinguished Service Award recipients

Dr. Robert T. Clarke (awarded 1978)
Dr. Norman J. Norton (awarded 1978)
Dr. Jack D. Burgess (awarded 1982)
Dr. Richard W. Hedlund (awarded 1982)
Dr. John A. Clendening (awarded 1987)
Dr. Kenneth M. Piel (awarded 1990)
Dr. Gordon D. Wood (awarded 1993)
Dr. Jan Jansonius (awarded 1995)
Dr. D. Colin McGregor (awarded 1995)
Professor John H. Wrenn (awarded 1998)
Professor Vaughn M. Bryant (awarded 1999)
Dr. Donald W. Engelhardt (awarded 2000)

Awards at each Annual Meeting: Best Student Paper Award, and Best Poster Award.

AASP Student Scholarships may be awarded annually to three students in the amount of US\$1500. The qualification of the student, the originality and imagination evident in the proposed project, and the likelihood of significant contribution to the science of palynology are factors that will be weighed in selection of award winners. Previous winners of this award are eligible only if they are pursuing a different degree than the one they were pursuing when they received the previous award. AASP Scholarships are available to all students of palynology in all countries and need not be members of AASP. Application forms appear in the January issue of the AASP Newsletter, are available from the Chairman of the AASP Awards Committee (Fred Rich frich@gasou.edu), or can be downloaded from our website at <http://www.palynology.org/content/scholar.html>

AASP Membership categories and dues (in US\$ per year) are as follows:

Individual (\$45.00), **Student** (\$30.00), **Retired** (\$15.00), and **Institutional** (\$70.00). Dues may be paid up to three years in advance by using credit card (MasterCard, Visa, American Express), check or money order (made payable to AASP Inc.), and must be sent to the Secretary-Treasurer. All members receive the AASP Newsletter (mailed quarterly by hard copy or via email), Membership Directory (mailed annually), and (with the exception of Retired members) the journal *Palynology* that is published annually. Overseas members can receive their Newsletter and *Palynology* by airmail, rather than book rate surface mail; an additional surcharge is required in the amount of US\$12.00 for Europe & South America, and US\$15.00 for Africa, Asia & the Pacific region (includes Australia and New Zealand).



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December 2004
ISSN 0732-6041

Volume 37, Number 4
Carlos Jaramillo, Editor

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The AASP Newsletter is published four times annually. Members are encouraged to submit articles, "letters to the editor", technical notes, meetings reports, information about "members in the news", new websites and information about job openings in the industry. Every effort will be made to publish all information received from our membership. Contributions which include photographs should be submitted a week before the deadline. Deadline for next issues of the newsletter is MARCH 1, 2005. All information should be sent by email. If possible, please illustrate your contribution with art, line drawings, eye-catching logos, black & white photos, colour photos, etc. We **DO** look forward to contributions from our membership.

PRESIDENT'S PAGE

By Martin Head

In my previous presidential address, I reported that AASP had joined GeoScienceWorld (GSW), a non-profit corporation formed by a group of geoscience organizations with the purpose of disseminating geoscience journals digitally over the internet. The cluster of journals in the GSW stable is very impressive and includes *Geology*, *GSA Bulletin*, *Journal of the Geological Society of London*, *AAPG Bulletin*, *Journal of Paleontology*, *Journal of Sedimentology*, *Paleobiology*, *Micropaleontology*, and many other top journals in the geosciences including our own *Palynology*. Bob Clarke attended the GSA annual meeting in Denver last November as AASP's representative to GeoScienceWorld, and returned with glowing reports about GSW's organization. The latest word is that GSW's launch is still on target for late January 2005. If you would like the convenience of downloading *Palynology* articles from the comfort of your office, with full access back to 2000, then have your library subscribe to GSW now. Details can be found at www.geoscienceworld.org/ You will be helping AASP too, because our association will accrue revenue based on the number of times *Palynology* articles are downloaded.

This leads me to announce with great pleasure that AASP has now also signed up with BioOne, another online aggregation of journals, and again run by a nonprofit corporation. BioOne specializes mostly in biology, ecology and the environmental sciences. It is already well established internationally, with close to 400 subscribing institutions in North America alone, not to mention eight institutions in Papua New Guinea, 36 in Nepal, 25 in Kenya, and seven in a country I can't even place on the map! *Palynology* will be joining the 72 other journals as part of BioOne early in 2005. Owen Davis, in addition to finalizing the editing of *Palynology* volume 28, did much of the groundwork that led to our joining BioOne.

This new online exposure vastly increases *Palynology's* accessibility around the world, and well beyond

the important but limited confines of AASP membership. Papua New Guinea may not be overflowing with palynologists, but as I have said before, this is a good time to be publishing in *Palynology*. Jim Riding, our new Managing Editor welcomes manuscripts on all aspects of palynology, and there is **still** available space in *Palynology* 29, which will be published in 2005 – but get your manuscripts in fast to avoid disappointment! Meanwhile, *Palynology* 28 is in the very final stages of typesetting as I write, and will be distributed before the end of the month.

The GSA annual meeting in Denver last November was attended by several AASP stalwarts including Bob and Carol Clarke, Doug Nichols, Fred Rich, and Bob Cushman. Bob Clarke, as AASP's official representative, attended the GSW Advisory Council meeting and was accompanied by Doug Nichols. Fred Rich and Doug Nichols officially represented AASP at GSA, and Bob and Carol Clarke personed AASP's booth. Our association's tasteful line in "trinkets and beads" was snapped up by a public eager to know more about palynology. Thomas Demchuk was as efficient as ever in organizing these excellent giveaways. Because of the efforts of all these individuals, and others not mentioned here, palynology (and AASP) was shown in a very favorable light at this major international meeting. AASP has reserved a booth for the 2005 GSA meeting in Salt Lake City, and Bob and Carol Clarke have again kindly offered to person it.

An important upcoming event in the palynology/micropaleontology calendar is the Rice Meeting in Houston: "Geological problem solving with microfossils", March 6–11, 2005 (www.sepm.org/microfossils2005.htm). AASP is sponsoring this meeting, and it is shaping up to be a major event. I hope to see many of you there. Just prior to the Rice Meeting, AASP will be holding its Board of Directors midyear meeting in St. Louis. Much of the Association's business gets done at these midyear meetings, so do please contact me within the coming months if you would like any matters raised for discussion. As a Board, we are very receptive to new ideas. I will sign off by wishing all AASP members, wherever you are, a peaceful and happy holiday season.

Martin J. Head
Cambridge, U.K., December 2004

FROM THE DESK OF THE AASP SECRETARY-TREASURER

By Thomas D. Demchuk

2005 MEMBERSHIP DUES

It's that time of year again for many of you to please start thinking about renewing your AASP membership for the 2005 year. For those of you who recently received an e-mail notification, or the new blue membership renewal notice in the snail-mail, your continued support of the Association is greatly appreciated and I very much look forward to receiving your payment in the very near future. Remember you can pay using several options: you can send a check in the mail, send me credit card information in the mail or via fax (281-293-3833) or you can log on to the AASP website (www.palynology.org) and go through the "Membership" link to the secure credit card site. Regular Individual membership remains at the low price of US\$45, with student membership at US\$30 and retired members at \$15.

*If you did not receive the e-mail notification or the new blue membership renewal form in the snail-mail, you are paid up through 2005 and possibly beyond. Renewal notifications have only been sent to those whose membership becomes due at the end of this year. If you have questions about your membership, please feel free to drop me an e-mail note. Many thanks to those of you who have already paid up your membership for 2005. A reminder to please keep your personal information up-to-date, most importantly your e-mail announcements for AASP notifications and other e-mailings.

STUDENT SCHOLARSHIPS

For the year 2005, AASP is offering several scholarships to students to be able to attend several palynologically-oriented functions which are scheduled. Firstly, two US\$500 scholarships are offered to students to attend the meeting to be held in March 2005 at Rice University, Houston, TX. "Geological Problem Solving with Microfossils" will be held March 6-9, 2005 on campus, and will bring together micropaleontologists from around the world to showcase the power of microfossils. See other announcements in this Newsletter, visit the conference website (www.sepm.org/microfossils2005.htm) and see the AASP website and the "Meetings" link for information on how to apply for one of these student scholarships.

Additionally, AASP is offering two US\$500 scholarships for students who wish to attend the Dinoflagellate Short Course which is being held in San Diego in July 11-15, 2005. The course is being taught by Henk Brinkhuis and colleagues, and will concentrate on the

paleoenvironmental aspects and chronostratigraphy of dinoflagellates. A preliminary announcement appears elsewhere in this Newsletter, and final details are being arranged and will be available for viewing through the AASP website in the very near future. Information regarding the scholarship applications will also appear soon on the AASP website.

Finally, AASP will be offering its usual student scholarships for those who wish to attend the AASP Annual Meeting which will be held in St. Louis, MO, next September 18-21, 2005. Final arrangements are being made for what should be a historic meeting under the guidance of Francisca Oboh-Ikuenobe. These scholarships are usually valued at US\$300, and there can be no limit to the number provided to deserving students. Details for application for these scholarships will appear on the conference website in the very near future (www.palynology.org/meetings.html).

OTHER BUSINESS

Not much else to report other than the upcoming Board of Directors Mid-Year meeting which will be held in St. Louis on Saturday, March 12, 2005 at the Radisson Hotel which will be the host for the Annual Meeting later in the Fall. Shortly thereafter I will report our membership and financial situation in the AASP Newsletter. I'll have a wrap-up of the Rice Microfossil Conference, more information regarding the San Diego Dinoflagellate Short Course and final information on the St. Louis AASP Annual Meeting. Perhaps there will be additional information on more AASP sponsored activities scheduled for the future. Merry Christmas to all of you, and very happy New Year.

Respectfully submitted,

Dr. Thomas D. Demchuk
AASP Secretary-Treasurer
Houston, Texas

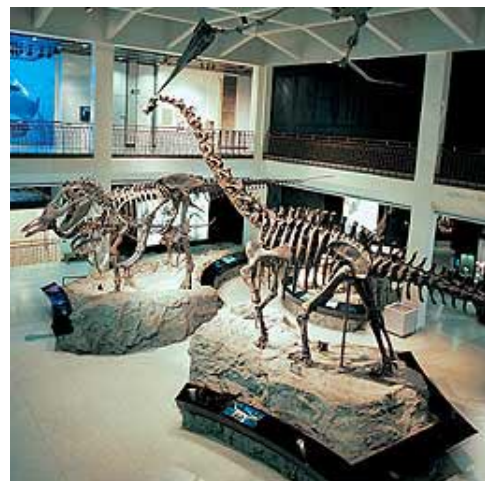
GEOLOGICAL PROBLEM SOLVING WITH MICRO-FOSSILS

RICE UNIVERSITY, HOUSTON, TX
MARCH 6-11, 2005

AASP members are cordially invited to attend this conference to be held on the campus of Rice University next March. Over 100 abstract submissions will lead to a full and diverse suite of oral and poster technical sessions. Two-and-a-half days of oral technical sessions, along with two days of poster presentations, will culminate with an afternoon roundtable discussion on the 2004 Geological Timescale. Each of the oral technical sessions will start with an invited

speaker. All information regarding the technical sessions can be viewed through the conference website www.sepm.org/microfossils2005.htm

Social activities for the conference are also being finalized, and it's anticipated that attendees will thoroughly enjoy some Texas hospitality. The highlight of the conference will be the Plenary Dinner to be held at the Houston Museum of Natural Science. A buffet dinner will be had among the dinosaurs and energy exhibits, and dessert will be served among the gem and mineral displays. In the IMAX theater, our guest speaker for the evening will be NASA astronaut Mike Fincke who has just returned from several months aboard the International Space Station. Astronaut Fincke who has a degree in geology will entertain us with some NASA insights on the large IMAX screen. There will also be a short presentation in memory of Garry D. Jones, the person behind the early preparations of this meeting and in whose honor this meeting is being held.



Houston Museum of Natural Science

The conference will begin with the Icebreaker on Sunday evening to be held in the Terrace Lounge of the host Warwick Hotel. Beverages and food will be plenty along with live jazz entertainment. Monday evening will offer an opportunity to closely review the numerous poster sessions, along with served finger food and the availability of beverages. Additionally, the Museum district, nearby Rice Village or a short train ride to downtown offers abundant chances to partake in Houston's world class restaurants and numerous drinking establishments. Maps and tourist guides will be made available to lead you in the right direction.

Attendees are encouraged to register through the conference website as soon as possible. The professional registration fee of US\$250 includes attendance to the Icebreaker and Plenary Museum Dinner, entrance to all the oral and poster technical sessions

and accompanying activities (time scale roundtable and Monday evening poster viewing) plus an abstracts volume with program. Student registration is US\$125. Student members may apply for an AASP scholarship to offset costs associated with attending the meeting. See the AASP website for details (www.palynology.org). Late registration for the meeting will be US\$300 and one-day registration will be made available at US\$125.

Attendees are further encouraged to make their hotel reservations at the Warwick Hotel before February 4th to ensure the special conference rate of US\$119 per night. After February 4th, rooms at the special rate may not be available. You may access the Hotel's website through the conference website, or just go to www.warwickhotelhouston.com. To receive the special conference rate enter the group code "Micro" in the proper space (not in the promo code). Students wishing to find more modest accommodations in the Museum district and possibly interested in sharing a room with other students, can contact Peter McLaughlin for further details (ppmclau@udel.edu).

The Rice 2005 Microfossil Conference will be a wonderful opportunity for palynologists worldwide to display their research, and it will be a great chance for palynologists to be exposed to varied micropaleontological disciplines. Additionally, there will be time to renew old friendships and make new ones in this casual Texas atmosphere. Questions regarding the meeting may be answered by visiting the conference website, or you may direct an e-mail to myself at tdemchuk@swbell.net. We look forward to a large audience of AASP members at the meeting.

Thomas D. Demchuk

AURIEL CROSS AWARDED THE AAPG GROVER E. MURRAY MEMORIAL DISTINGUISHED EDUCATOR AWARD

Aureal T. Cross was awarded the 2005 Grover E. Murray Memorial Distinguished Educator Award offered by the AAPG (American Association of Petroleum Geologists). The Grover E. Murray Memorial Distinguished Educator Award (formerly Distinguished Educator Award) is given to recognize distinguished and outstanding contributions to geological education including, but not limited to, teaching and counseling of students at the university level. Funded by Dr. and Mrs. Grover Murray, this award can also be given for education of the public and management of educational programs.

TRANSFER OF THE GRAYSON/BEJÚ LIBRARY

By David M. Jarzen (dmj@flmnh.ufl.edu)

In the early 1980's when John F. Grayson was preparing for his retirement from Amoco Production Company, Tulsa, Oklahoma, he contacted me to ask if I would be interested in accepting his complete library of book, reprints, reports, field notes, correspondence and other associated materials as a part of the Palynology collections at the National Museum of Natural Sciences (now the Canadian Museum of Nature) in Ottawa, Canada. I of course accepted the offer, and over the next several years received shipments of boxes of library holdings from John.

In order to facilitate a tax benefit for John, the collection was actually donated by Grayson to the American Friends of Canada, a New York City based organization that accepted donations destined for Canada from US citizens, thereby allowing the donor to receive US tax credit based on a professional outside appraisal of the goods being donated. Eventually with the proper paperwork and evaluations of the many thousands of pages of journal runs, textbooks, reprints and photographic plates etc., the collection was donated by the American Friends of Canada to the Canadian Museum of Nature under my care as Palynologist and Curator of Fossil Plants. A few years after the establishment of the Grayson Library, Dan Bejú passed away (1985). His wife, Delia Bejú, contacted me in 1987, through the suggestion of John Grayson, and offered Dan's library as a donation to the existing Grayson Library. I again of course accepted this gracious offer. The Grayson/Bejú Library was now a respectable collection of botanical, geological, palynological (terrestrial and marine) and many miscellaneous materials which record the early days (1940 – 1990) of palynology in the United States (Jarzen, 1991).

In 1997 I left the Canadian Museum of Nature (CMN) to take up my current position at the Florida Museum of Natural History (FLMNH). The Grayson/Bejú Library was left behind as the property of the CMN, and was incorporated in the museums research library. The years passed until the agreement with the American Friends of Canada expired and I was able to negotiate with my Canadian colleagues to have the Grayson/Bejú Library transferred, via a donation, to the FLMNH. After a few months discussion and a return visit to Ottawa, the Directors of the CMN and FLMNH signed papers making the transfer possible.

From this point on, the transfer details were assumed by Susan Jarzen, who managed to contact Canadian

and US bonded shippers, and to negotiate with US/ Canadian Brokers to have the entire library legally cross the border.

The Grayson/Bejú Library is today housed at the University of Florida, Florida Museum of Natural History, Dickinson Hall, in the Paleobotany and Palynology Laboratory along with the Dilcher, John Hall and Herman Becker Paleobotany Libraries. The Grayson/Bejú Library is available for use by researchers, students and others interested in palynological research, especially when early papers are sought. Material is not loaned, but is available for use on site. The library holdings are not yet catalogued electronically; however, plans are underway to have this work completed within the next year or two. For further information and/or access to the Library, please contact David M. Jarzen at the address and contact information provided below.



Florida Museum of Natural History

The following people are thanked for their early or recent involvement in the acquisition and transfer of the Grayson/Bejú Library: Delia Bejú, Steve Cumbaa, Richard Gordon Day, David Dilcher, Susan Jarzen, Doug Jones, Merrill Miller, Kieran Shepherd, David Steadman, Patrice Stevenson and Greg Whalen.

Jarzen, S.A. 1991. The John F. Grayson Palynology Library. *Canadian Association of Palynologists Newsletter* 14(1):17-18.

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BOOK REVIEW: IN QUEST OF GREAT LAKES ICE AGE VERTEBRATES

In Quest of Great Lakes Ice Age Vertebrates by J. Alan Holman, Michigan State University Press, East Lansing, MI, 2001, ix + 230 p. Hardcover \$59.95 (but available for less than half that at Half.com), ISBN: 0-87013-591-0.

In Quest of Great Lakes Ice Age Vertebrates by Alan Holman was written to detail the Ice Age fishes, amphibians, reptiles, birds, and mammals in the 5 states (Michigan, Ohio, Indiana, Illinois, and Wisconsin) and one Canadian province (Ontario) surrounding the Great Lakes. The states of Pennsylvania and New York, which also border on the Great Lakes, are not included and therefore the title of the book is not quite correct. According to the author, the main objective of the book is “to introduce the reader to the fascinating vertebrate life of the Ice Age of the Great Lakes region.” Since its emphasis is clearly vertebrate fossils, why then should this book be reviewed in the AASP Newsletter? The answer is because this is a remarkable book that, unlike any others written by a vertebrate paleontologist, surprisingly provides extensive coverage of palynology. Holman includes in the bibliography no less than 40 references to articles authored or co-authored by AASP members. In stark contrast, a similar book on Ice Age mammals (Lange 2002) contains no reference to palynology and no AASP members in the bibliography. Of course, the latter is more typical of the writings of vertebrate paleontologists, many of whom seem to think that any fossil organism without teeth is not worth mentioning. By including numerous references to palynology, Holman’s book is refreshingly atypical. At a time when the importance and significant contributions of palynology appear to be largely overlooked by many of our scientific colleagues, Holman’s treatment of the pollen and spore record is indeed encouraging. I hope that many vertebrate paleontologists read Holman’s book and catch on!

Holman is Emeritus Professor of Geological Sciences and Emeritus Curator of Vertebrate Paleontology at Michigan State University, one of my alma maters. He has published more than 240 papers and several books, including *Fossil Snakes of North America* (Holman 2000), *Fossil Frogs and Toads of North America* (Holman 2003), and *Pleistocene Amphibians and Reptiles in Britain and Europe* (1998). So, as a highly productive and distinguished vertebrate paleontologist to what can we attribute his extensive coverage of palynology? The answer probably lies at least in part in Holman’s long association and collaboration with the late Ronald O. Kapp, author of the first edi-

tion of the little spiral-bound book "*How to Know the Pollen and Spores*" (and incidentally the first person to influence me to study palynology). A 2nd edition of Kapp's book, co-authored with O. K. Davis and J. E. King, is now available through the AASP Foundation. Although Kapp was located at Alma College and not at the same academic institution (Michigan State University) as Holman (and AASP members Aureal Cross and Ralph Taggart), Holman and Kapp enjoyed a long and fruitful collaboration resulting in several joint publications. It was probably his association with Kapp that had a strong influence on Holman recognizing the important contributions that palynologists have to offer vertebrate paleontologists.

Holman's book consists of 10 chapters, including a brief Introduction and an even briefer final chapter on "*The Holocene*." Nearly every one of those 10 chapters contains some reference to palynology. The primary exception is Chapter 7 entitled "*A Bestiary of Great Lakes Region Ice Age Vertebrates*", where the Pleistocene vertebrates of the Great Lakes region are individually and systematically discussed. At 113 pages long, Chapter 7 is by far the largest part and really the heart of the book. In contrast, several other chapters are surprisingly short (2 or 5 pages) and the last chapter of the book is only one page long! Although to many readers the "*Bestiary*" chapter of the book contains its real value, because it will be considered far lesser valuable to AASP members, I will touch only lightly on this chapter in my review. Instead, I will emphasize here Holman's references to and discussion of palynology. Two other book reviews (Molnar 2003, Semken 2003) provide more extensive coverage of the whole book.

On page 5 of Chapter 1 Holman introduces and defines palynology (really paleopalynology). In Chapter 2 entitled "*The Pleistocene Ice Age*" Holman reminds us that "*The advancing and retreating ice sheets of the Pleistocene [drastically] altered vegetational communities*." In this chapter, he briefly discusses the "Stripe Hypothesis" versus the "Plaid (or Mosaic) Hypothesis" to explain how plant species may have responded to Ice Age climatic changes. According to the older "Stripe Hypothesis" plant species responded as communities, resulting in "stripes" of plant communities (tundra, taiga, deciduous forest, etc.) advancing and retreating more or less parallel to the glacial front. According to the "Plaid (or Mosaic) Hypothesis" plant species responded as individuals rather than as a community, resulting in a complex mosaic of plant communities, some unlike those presently found in the Great Lakes area. He revisits this discussion in Chapter 9. In Chapter 3 ("*The Pleistocene in the Great Lakes Region*"), Holman also discusses post-

glacial re-colonization of plant communities. Here he puts things in perspective with an unusual statement from a vertebrate paleontologist: "*Studies of the patterns of the reestablishment of plant communities in previously glaciated regions are especially important, as these patterns relate to re-colonization patterns in animals*." He also correctly points out that our understanding of the reestablishment of postglacial plant communities is based primarily on palynology.

In Chapter 4 entitled "*Where to Find Pleistocene Vertebrate Fossils*", Holman writes that since kettle lakes and ponds "*represent essentially still bodies of water where little or no transport of fossils occurred, they are natural laboratories for paleoecological studies*." In this chapter he also reminds readers that important fossils associated with Pleistocene vertebrates include "*pollen grains and spores, plant fibers, cones, stems and twigs, nuts, seeds, leaves, roots, logs, branches, bark, beaver-chewed wood*" etc.

In Chapter 5 on collecting fossils, the author deals with the ethics of fossil collecting (and selling) and reminds us 1) that fossils are nonrenewable resources and invaluable scientific objects, 2) that amateur fossil collectors should take all unusual or important fossils to professional paleontologists for evaluation, and 3) that it is important to collect and save not just vertebrate bones and teeth from fossil sites, but all fossil remains, including sediment samples that can be used for palynology. That advice surprised me! Many paleobotanists do not even collect palynology samples from their macrofossil localities.

Chapter 6, on the dating of fossils, is only 1.5 pages long and understandably does not make reference to palynology. Likewise, Chapter 7 (the "Bestiary") presents a systematic discussion of Ice Age vertebrates without mentioning palynology. However, Chapter 8 contains a description of important Pleistocene fossil sites in the Great Lakes region and in this discussion, Holman includes in his description of individual sites whether or not the site yielded pollen and spores and interpretations of the vegetation. To palynologists, this chapter is probably the most valuable because it provides a useful overview of Pleistocene sites containing both vertebrates and palynomorphs, along with paleoenvironmental interpretations.

In Chapter 9, Holman addresses without reservation such controversies as the presence of marine algae, marine invertebrates, marine fishes, seals, walruses, and whales in Pleistocene sediments of the Great Lakes. He also tackles head on such controversies as Plaid or Mosaic Hypothesis versus Stripe Hypothesis, the Mason-Quimby Line (north of which there is no

undisputed evidence of Pleistocene vertebrates), and the Overkill Hypothesis (that the terminal Pleistocene extinction of large mammals was due to overkill by early Native American hunters). Elsewhere in the book, as a senior member of the scientific community, Holman sometimes clearly states his opinion, such as "...a few paleontologists have included birds in a class called *Dinosauria*. But let's get this straight: birds are not dinosaurs." However, like a more reserved scientist, in this chapter he concludes that much more research is needed to answer remaining questions and settle these outstanding controversies.

To me one of the greatest contributions of Holman's book is a reminder of the complexity of paleoclimates during the mis-named "Ice Age." With his "*Bestiary*" in Chapter 7 he reminds us that the presence of such species as caribou, muskoxen, woolly mammoths, snowshoe hares, and tundra lemmings indicate that "a harsh, perhaps even a savagely cold climate" was present in the Great Lakes region during part of Pleistocene time. However, at other times during the so-called "Ice Age," the presence of such animals as tapirs, armadillos, jaguars, peccaries, capybaras, and giant land tortoises indicate that the paleoclimate was much warmer than present. Some of these species do not tolerate freezing temperatures today and presumably would not have been able to exist in the Great Lakes area in the past if temperatures dipped below freezing in the winter (Hibbard's Rule). The fossil remains of these creatures indicate that at times during the "Ice Age" the Great Lakes area must have had much warmer winters than it has at present. If global warming results in a return to such mild winters, I may even consider moving back to Michigan from California.

Holman's book is spiced with some delightful original poetry, such as: "A turtle is tough and it's stout, for its skeleton's turned inside out." And: "The mammoth weighed several tonne and when his short lineage was done, his huge bones remained but have yet explained if his species were three, two, or one." Holman has also sprinkled the text with some interesting and intriguing (?)factual tidbits, like: "In what is now the Canadian prairies, gigantic masses of Cretaceous bedrock called megablocks that weighed millions of tons and measured up to 3 miles long were sometimes transported more than 200 miles by the ice sheet." And: "A mating pair of wood frogs was frozen solid together in a laboratory in Ottawa and, when thawed out continued the mating process."

Overall, the book is well-written in an easy-to-read, teaching style and beautifully produced with numerous maps and figures. Use of common names in

addition to scientific names throughout the text is commendable and makes the volume more useful to those in other specialties/disciplines and even to the general public. Editing varies from good to excellent but quality decreases in the last few chapters. At a cost of only 26 cents per page, the book is a bargain for such an encyclopedic compilation. At this price, it is well worth even palynologists having a copy on their book shelves, if for no other purpose than to illustrate to their vertebrate paleontologist friends that some of their colleagues recognize the true value and important contributions of palynology.

Reviewed by Lanny H. Fisk
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References:

- Holman, J. A., 1998, Pleistocene amphibians and reptiles in Britain and Europe: Oxford University Press, Oxford, England, 254 p.
- Holman, J. A., 2000, Fossil snakes of North America – origin, evolution, distribution, paleoecology: Indiana University Press, Bloomington, IN, 400 p.
- Holman, J. A., 2003, Fossil frogs and toads of North America: Indiana University Press, Bloomington, IN, 328 p.
- Lange, I. M., 2002, Ice age mammals of North America—a guide to the big, the hairy, and the bizarre: Mountain Press Publishing Company, Missoula, MT, 226 p.
- Molnar, R. E., 2003, [Review of] In quest of Great Lakes Ice Age vertebrates: Journal of Vertebrate Paleontology, vol. 23, no. 1, p. 258-259.
- Semken, H A., Jr., 2003, [Review of] In quest of Great Lakes Ice Age vertebrates: Journal of Paleontology, vol. 77, no. 2, p. 405-407.

BOOK REVIEW: THE GREAT ORDOVICIAN BIODIVERSIFICATION EVENT

edited by Barry D. Webby, Florentin Paris, Mary L. Droser, and Ian G. Percival.
Columbia University Press, New York; ISBN 0-231-12678-6; 408 p.; May 2004. Price \$99.50 (hard cover).

This handsome, scholarly volume is the latest in a series embracing, dissecting, interpreting, and indeed celebrating "Critical Moments and Perspectives in Earth History and Paleobiology" and published by Columbia University Press. Its 14 predecessors have illuminated such themes as Cambrian radiations, end-Permian and end-Cretaceous mass extinctions, Lagerstätten, the advent of vascular land plants, Phanerozoic sealevel fluctuations, and paleoclimatology. As such, "The Great Ordovician

Biodiversification Event” has a richly diverse and distinguished heritage.

The book is the tangible outcome of a six-year international research enterprise inaugurated in 1997 and conducted, under the auspices of UNESCO/IUGS, as IGCP Project #410. As the first IGCP project to focus on Ordovician biotas and relevant aspects of their host strata worldwide, it aimed to provide a comprehensive and interpretive survey of biological diversification through this early Paleozoic time span of some 46 Ma. The first-named editor and the evident driving force of the project, Barry Webby, and his large complement of Ordovician specialists have clearly assembled and analyzed a prodigious amount of paleontological and cognate data.

So what are the particular features of the Ordovician fossil record that warrant such assiduous attention, deliberating on what might be construed, superficially, as an anticlimactic aftermath of the momentous and well-documented bio-events of the Cambrian period? The answer, of course, is manifold, but in general terms involves the remarkable diversification of many groups of marine animals, such as trilobites, graptolites, conodonts, articulate brachiopods, tabulate and rugose corals, bryozoans, gastropods, nautiloids, and echinoderms. All of these groups and others are discussed and their taxonomic diversity and patterns thereof assessed, together with other pertinent topics (including sealevel changes, the end-Ordovician glaciation, and isotopic signatures). This multifaceted exposition is suitably prefaced by Webby's lengthy (37 p.) and authoritative introductory chapter and by three succeeding chapters (2-4) dealing, respectively, with the stratigraphic framework and time slices, the Ordovician timescale, and diversity-estimation principles. In all, the book comprises 36 chapters with contributions from close on 100 authors. Despite this multiplicity, there is the satisfying perception of a logically and freely flowing treatise, fundamentally due no doubt to inspired and painstaking organization on the part of Webby and his coeditors.

Of particular interest to paleopalynologists will be chapters 28, 32, and 33, concerned respectively with chitinozoans, acritarchs, and miospores (the latter principally cryptospores produced by primitive embryophytes and indicating or presaging the inception of genuine land plants). These chapters provide useful summaries of the nature, distribution, and biological affinities of the main groups of palynomorphs preserved in Ordovician strata, with data sets underpinning the estimation of diversity gradients, mostly from regional standpoints. Omitted,

however, is anything other than very incidental mention (p. 4) of the prasinophyte phycmata and of the globally widespread late Middle-Late Ordovician organic-walled cyanobacterium *Gloeocapsomorpha prisca*.

The book is remarkably free of textual blemishes and is generally well and appropriately illustrated. The only regret – not to be regarded as an obligatory reviewer's gripe – is that more fossils of the various groups were not illustrated; in fact, most chapters are lacking in that respect. Surely, selected, representative photographs could have been included in the taxonomic chapters, enhancing the book's thematic appeal while not expanding it to unmanageable proportions. The list of references is, as expected, very comprehensive as is the indexing.

In summary, Barry Webby and his dedicated cohorts are to be congratulated for producing this admirable and insightful stocktake of Ordovician paleobiology. The book stands as an indispensable reference for paleontological and cognate studies of the early Paleozoic, and will likely remain so for years to come. The IGCP sponsors have surely been richly rewarded for their fiscal largesse in supporting the research project that culminated in the production of the eponymous treatise. Full marks also to Columbia University Press for high production values.

Reviewed by Geoffrey Playford
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A NEW PALYNOLOGICAL PREPARATION TECHNIQUE

By James Riding

At the 36th annual meeting at St. Catharines in October 2003, I gave a talk entitled: 'The preparation of palynomorphs without using mineral acids'. In this presentation, I described a method developed at BGS for preparing palynomorphs from clay-rich sediments or sedimentary rocks. It works well on most lithotypes, but has not been tested fully on highly indurated rock samples. BGS continues to work on developing this, and other, methods of non-acid palynological preparation. The abstract of my presentation is reproduced below. A full description of the technique was published recently (Riding and Kyffin-Hughes, 2004). I am happy to supply reprints on request.

The traditional acid-based digestion process brings both financial and health/safety pressures and if a viable alternative exists it should be used. I would like to ask if any AASP members have tried this technique and, if so, with what success? Reports of case studies and/or any feedback will be gratefully received. Many thanks.

RIDING, J. B. and KYFFIN-HUGHES, J. E. 2004. A review of the laboratory preparation of palynomorphs with a description of an effective non-acid technique. *Revista Brasileira de Paleontologia*, No. 7(1), 13-44.

THE PREPARATION OF PALYNO MORPHS WITHOUT USING MINERAL ACIDS

ABSTRACT: The laboratory preparation of palynomorphs for microscopical study has traditionally used three aggressive mineral acids. Hydrochloric acid (HCl) and hydrofluoric acid (HF) are used to dissolve the rock or sediment matrix, and nitric acid (HNO₃) may be used to remove amorphous organic material from post-HCl/HF residues derived from organic rich sedimentary rocks. Acid digestion using HCl and HF relies on the robust chemical nature of sporopollenin to release palynomorphs. These complex biopolymers, based on carotenoids, form the wall of all palynomorphs. Sporopollenin is, however, susceptible to oxidation.

The use of mineral acids in palynological preparation is both expensive and highly dangerous. These factors are especially acute in remote locations such as field operations and rigsite work. An effective technique of palynomorph preparation using sodium hexametaphosphate [(NaPO₃)₆] has been developed; this substance is a well known disaggregating and deflocculating agent. The cleaned and crushed rock/sediment sample is first softened using a detergent, before treatment with (NaPO₃)₆. The deflocculated clay (<10 µm) is then sieved away and the residue centrifuged to remove resistant mineral grains.

This method has been tested on seven successions of Jurassic, Cretaceous and Quaternary age from the UK and Antarctica. In five of these sample sets, the rock or sediment has been prepared using both the traditional mineral acid technique and the (NaPO₃)₆ procedure. Moreover, four of these five sets of samples were prepared by both methods quantitatively, such that the precise concentrations of palynomorphs can be compared.

The (NaPO₃)₆ method largely proved to be equally as effective as the mineral acid procedure. Examples of this are the early Toarcian Whitby Mudstone Formation of Leicestershire and the mid and late Albian

Gault Formation of Kent, which both generally produced similar palynomorph/kerogen associations. Furthermore, no preservational biases were observed with either technique; the two procedures produced palynomorphs with virtually identical species spectra and relative proportions. Some differences between the two procedures, however, were noted. The (NaPO₃)₆ method produced significantly better results than did acid preparations of the latest Cretaceous (Maastrichtian) of Antarctica and the Pleistocene Till of northern England. By contrast, the majority of the samples from the late Campanian-early Maastrichtian White Chalk Subgroup of north Norfolk which were prepared using HCl were significantly richer in palynomorphs than those treated with (NaPO₃)₆.

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NEWS FROM INDIA

By Naresh C. Mehrotra (nareshmehrotra@indiatimes.com)

Birbal Sahni Institute of Palaeobotany, Lucknow, celebrated its Founders Day Function on Sunday November 14, 2004. Sir A.C. Seward Memorial Lecture on "Stratigraphic Records of Late Quaternary Climate Shifts in the Thar and its Margins" was delivered by Prof. S.K. Tandon of University of Delhi.

Prof. A.K. Singhvi of Physical Research Laboratory, Ahmedabad gave Birbal Sahni Memorial Lecture on "The Human Dimension of Geosciences". Prof. K.R. Surange, Former Director, Birbal Sahni Institute of Palaeobotany, Lucknow and Agharkar Research Institute, Pune was felicitated on this occasion for his life time contribution to the development of Palaeobotany. This function was presided over by Prof. J.S. Singh, Chairman, Governing Body, BSIP.



Birbal Sahni Institute of Palaeobotany

NEWS FROM BRAZIL

by Mitsuru Arai (arai2002rs@yahoo.com.br), José Henrique G. Melo, and Mirta Quattrocchio (mquattro@criba.edu.ar)

Boletim de Geociências da Petrobras now on-line

The Boletim de Geociências da Petrobras, issued by PETROBRAS (the Brazilian state-owned oil company), is now available fully digital (on-line PDF). You can have access to the last two issues, v. 11(1/2) and v. 12(1), at the following website: <http://www2.petrobras.com.br/portal/tecnologia.htm>.

The latter issue includes an article related to palynology, entitled "Retrospective of fossil dinoflagellate studies in Brazil: their relationship with the evolution of petroleum exploration in the Cretaceous of continental margin basins [Histórico do estudo de dinoflagelados fósseis no Brasil: sua relação com a evolução da exploração petrolífera no Cretáceo das bacias da margem continental]" by M. Arai and C.C. Lana. The paper is written in Portuguese, but an expanded English abstract is available at the end of the same. For direct access to the article please see: http://www.petrobras.com.br/boletim/Bgp11_1_2/jAraieLana.pdf

XI Brazilian Meeting on Paleobotany and Palynology (XI RPP) at Gramado



Cascata do Caracol (RS/BR)

The XI Brazilian Meeting on Paleobotany and Palynology (XI RPP) was held at Gramado, Rio Grande do Sul State, from November 7 to 10, 2004. This meeting covered all aspects of the paleobotanical and palynological studies, including future developments in ecology and taxonomy of modern biomes, especially those with *Araucaria* and *Podocarpus*. More than 150 participants not only from Brazil, but also from Argentina, Uruguay, Peru, Mexico and other continents attended it. They presented 156 scientific contributions between talks and posters, during the three-day of the meeting. Besides two field trips, one

before and one after the meeting, two short-courses were also held. A complete information of this event can be found at www.exatec.unisinos.br/_rpp2004

In addition, a new Board of Directors (2005-2008) of the *Asociación Latinoamericana de Paleobotánica y Palinología* (ALPP - Latinoamerican Association of Paleobotany and Palynology) was elected during the XI Brazilian Meeting of Paleobotanists and Palynologists. It is composed of researchers from different institutions of the Rio Grande do Sul State. The *Asociación Latinoamericana de Paleobotánica y Palinología* was established in 1972 to promote the Paleobotany and Palynology of Latin America. The next official meeting of the ALPP members will be placed in Bahía Blanca, Argentina (2006), during the XIII Argentinean Symposium of Paleobotany and Palynology.

ALPP Board of Directors elect:

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RESEARCH OPPORTUNITIES AT PROVIDENCE COLLEGE, RHODE ISLAND, USA

Palynologist Michael S. Zavada, Providence College, Rhode Island, USA, writes of three research opportunities in Madagascar.

1) We are working on a Lower Cretaceous palynoflora with dinos from the Mahajunga Basin, Madagascar. We would like the Dinos documented and identified, any one willing to do this can be considered a co-investigators on this material with Michael S. Zavada (Providence College) and Toussaint Rakotondrazfy (University of Antananarivo).

2) Looking for a student to be supervised at any college or university (I may or may not be a committee member, we do not have a graduate program at Providence College) to work on the extensive marine Eocene outcrops in the Mahajunga and Morondava Basins, Madagascar. Basic field geology e.g. mapping and naming of these formations, characterization of marine fossil etc., would be a good MS or PhD thesis. They could be written into my next field grant for Madagascar to spend 4-6 weeks in the field. We are interested in reconstructing Tertiary habitats in Madagascar. There are also some localized Miocene outcrops.

3) Also possible student for stratigraphic project. Need a student to work on offshore and onshore well material (SWC) in the Mahajunga Basin, Madagascar, I am currently trying to obtain this material from the Oil Exploration office in Madagascar. I will be specifically working on the angiosperm floras in these samples.

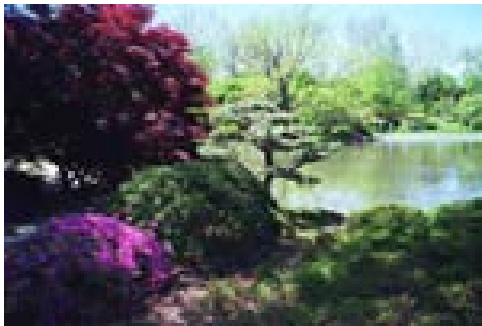
If interested contact Michael S. Zavada Department of Biology Providence College Providence, RI 02918, USA, Ph: 401-865-2163, Fax: 401-865-1438, mzavada@providence.edu <http://www.providence.edu/bio/faculty/zavada/>

38TH AASP ANNUAL MEETING

18-22 September 2005

St. Louis, Missouri

By Francisca Oboh-Ikuenobe ikuenobe@umr.edu



Japanese Garden at MBG

The 38th Annual Meeting of the AASP will be held on September 18-22, 2005 at the Raddisson Hotel and Suites Downtown in St. Louis, Missouri. Francisca Oboh-Ikuenobe (University of Missouri-Rolla) is in charge of logistics for the meeting, while Reed Wicander (Central Michigan University) and Paul Strother (Boston College) are coordinating the technical program. Information about registration, technical sessions, abstract submission deadline, field trips, social events, and a tour of the Missouri Botanical Gardens can be found on <http://www.palynology.org/meetings.html>.

NEW WEBSITE ON FOSSIL POLLEN AND SPORES

Mark Horrocks runs a consulting service for analysis of plant microfossils and he would like readers to take note of his recently launched website (www.microfossilresearch.com), which gives full details of his services and also has abstracts of publications of research he has been involved in.

Dr Mark Horrocks

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AGENDA

2005

March 6-11, 2005, Geological Problem Solving with Microfossils, Rice University, Houston, Texas, USA.

Abstracts accepted April 1 - October 14, 2004.

Website www.sepm.org/microfossils2005.htm.

Inquires to Thomas Demchuk thomas.d.demchuk@conocophillips.com

September 18-22, 2005, 38th AASP Annual Meeting, St. Louis, Missouri, USA

Details at [//www.palynology.org/meetings.html](http://www.palynology.org/meetings.html)

2006

September, 7 - 12, 2006 European Palaeobotanical-Palynological Conference, Prague, Czech Republic.

Registration deadline December 31, 2004. Conference web page: www.natur.cuni.cz/eppc2006/. Contact [Stanislav Oplustil eppc2006@natur.cuni.cz](mailto:Stanislav.Oplustil@natur.cuni.cz)

A special word for Paleozoic palynologists - the next General Meeting of the CIMP will be in Prague in 2006 a few days before EPPC. Post-Conference Field trip of the CIMP is joint with the Pre-Conference Field Trip of the EPPC. No problem to participate on both conferences, if anybody likes it!

Prague is a very beautiful city, one of the most beautiful in the world! If you have never been in Prague - you cannot miss this chance!!!

NEW AASP FOUNDATION PUBLICATION

The Lentin and Williams Index of Fossil Dinoflagellates
2004 Edition

by

Robert A. Fensome and Graham L. Williams

ABSTRACT

In this Index are listed all dinoflagellate cyst taxa at and below the generic rank known to the authors as of 30th June 2004. The Index includes a total number of 10,746 entries (9582 in the main index and the rest in the two appendices). In terms of current (“correct” sensu ICBN) names for fossil dinoflagellate taxa as recorded in this edition of the Index, there are 627 genera, 4070 species and 426 infraspecific taxa. Validly published and legitimate names are listed, as well as those that are effectively published, but are not valid or are illegitimate. Information on synonymies, nomenclatural types, nomenclatural status, history, and geologic age is also provided. Proposals include 2 new names (*Pseudoceratium australiense*, *Sentusidinium? millepedii*), 12 new combinations (*Batiacasphaera biornata* subsp. *conspicula*, *Bohaidina reticulata*, *Calciodinellum albatrosianum* var. *spinulosum*, *Charlesdowniea pengchiahsuensis*, *Charlesdowniea taiwaniana*, *Distatodinium pusillum*, *Distatodinium tuberculatum*, *Meiourogonyaulax bathonica*, *Pernambugia tuberosa* forma *elongata*, *Pernambugia tuberosa* forma *variospinosa*, *Pithonella brezovica* and *Pyxidiniopsis jiaboi*) and one newly validated name (*Spiniferites alaskensis*). Taxa at some time included in non-dinoflagellate or extant dinoflagellate genera are listed in two appendices. Appendix A lists all non-dinoflagellate genera that at some time have included species or infraspecific taxa now or previously considered dinoflagellates; it also includes genera listed in the main text of previous editions of the Index but not (now) considered dinoflagellates. Appendix B includes extant dinoflagellate genera based on motile types to which cyst taxa have been assigned.

909 pages

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