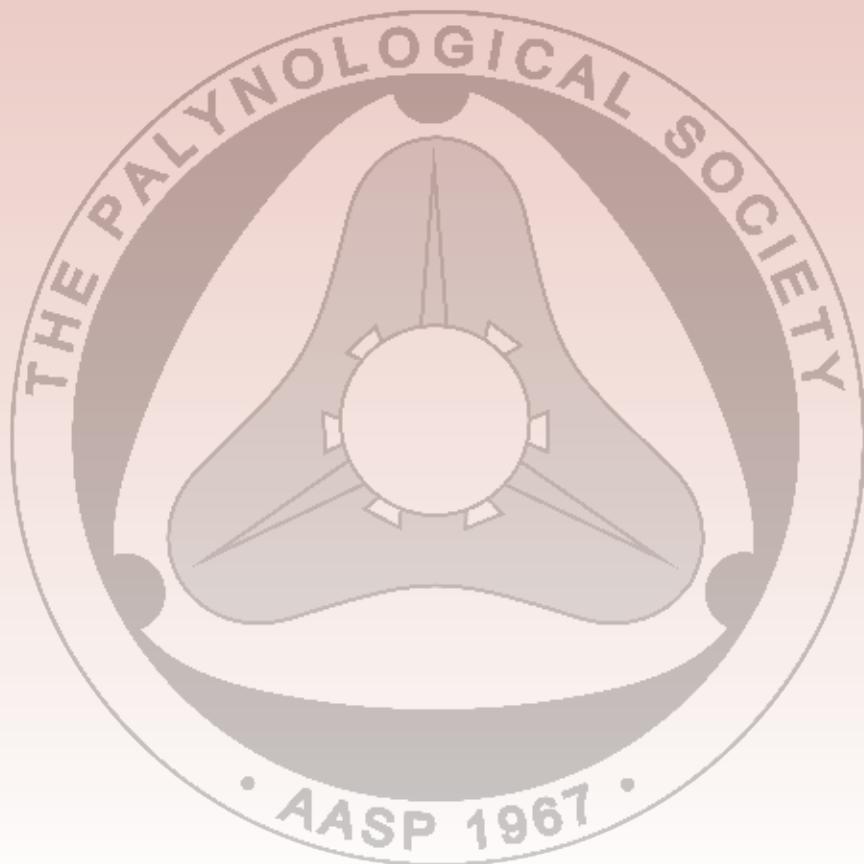


AASP- THE PALYNOLOGICAL SOCIETY



Ceratopteris pteridoides
by David Jarzen



NEWSLETTER



December 2011
Volume 44, Number 4



A.A.S.P. NEWSLETTER

Published Quarterly by the AASP - The Palynological Society

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Volume 44, Number 4

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A.A.S.P.

The Palynological Society

The American Association of Stratigraphic Palynologists, Inc. - AASP-The Palynological Society - 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* (biannually), 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)
Professor Svein B. Manum (awarded 2002)
Professor Barrie Dale (awarded 2004)
Dr. David Wall (awarded 2004)
Dr. Robin Helby (awarded 2005)
Dr. Satish K. Srivastava (awarded 2006)

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 Aural T. Cross (elected 1991)
Dr. Robert T. Clarke (awarded 2002)
Professor Vaughn Bryant (awarded 2005)
Professor Alfred Traverse (awarded 2005)

AASP Board of Directors Award recipient

Dr. Robert T. Clarke (awarded 1994)

Teaching medal recipients

Professor Aural T. Cross (awarded 1999)
Professor Alfred Traverse (awarded 2001)
Professor Bill Evitt (awarded 2006)

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)
Dr. David T. Pocknall (awarded 2005)
Dr. David K. Goodman (awarded 2005)
Professor Owen K. Davis (awarded 2005)
Dr. Thomas Demchuk (awarded 2009)



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Published Quarterly by AASP - The Palynological Society

December 2011
ISSN 0732-6041

Volume 44, Number 4
Sophie Warny, Editor

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Stephen Louwye	Flemish-speaking Belgium

Thank you to our new
newsletter correspondents.

We are still looking for folks to
cover some parts of the world
such as South America,
Australia, Eastern
Europe, and Africa.

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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 two weeks before the deadline. **Deadline for submission for the next issue of the newsletter is February 15.** 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.**

A message from our new president

By : Francisca Oboh-Ikuenobe



I became a member of AASP – The Palynological Society during my first year as an Assistant Professor in 1991. The opportunity to serve as President is truly an honor because the society has played an integral part in my role as a teacher and researcher. Several AASP-TPS members, including Lucy Edwards, Norm Frederiksen, Gordon Wood, Dave Pocknall, Ian Harding, Al Traverse, and the late John Wrenn and Doug Nichols, have been my mentors and role models. I have recruited graduate students through the society. However, I have also witnessed the evolution of a once larger professional society to one struggling to maintain its membership base while broadening its appeal to a more global audience. Declining membership was one of the three issues I addressed during the business luncheon at the annual meeting in Southampton, U.K. in September. How can AASP-TPS reverse this trend? How can we ensure that current members continue to renew their memberships? How can we attract new members? Below are some proactive strategies we as members should consider adopting:

- Invite colleagues to join AASP-TPS and then follow up with them about renewing their memberships
- Encourage students to become new members; those of us in academia can even go one step further by paying membership dues for these students!
- Market palynology to other geologists and the general public through outreach efforts; visit local elementary and high schools to present your work; participate in K-12 workshops such as “Expanding Your Horizons” in Science and Mathematics, a U.S. program for 7th and 8th grade girls; visit universities and research institutions to present seminars
- Write a column about palynology in your local newspaper

The other two major issues that the Board of Directors is addressing during my presidency are the redesign of our website and the AASP Center for Excellence in Palynology (CENEX) at the Louisiana State University (LSU). The website is the “face” of our association but is currently not user-friendly. In October the board contracted a consulting firm to work with Webmaster Owen Davis to redesign the website. The new site will be unveiled early in 2012.

Past President Paul Strother and I met with Dr. Kevin

Carman, Dean of Science at LSU in April to discuss the vacant position for the AASP Chair in Paleopalynology and the status of the CENEX committee. Since our meeting, LSU has advertised this endowed chair position and is seeking an individual to “develop a program in stratigraphic paleopalynology, particularly chronostratigraphy and/or paleoecology.” The successful candidate will serve as Director of CENEX. Following our meeting with Dean Carman, the AASP Board is now working on restructuring the CENEX Committee from one focused primarily on development to one more focused on the center itself.

Writing this column has made me reflect on what it takes to run an effective professional organization. I’m truly in awe of the contributions of the past and present members who have guided our society on its 44-year journey so far, and have made its flagship journal, *Palynology*, and Contribution Series relevant in today’s scientific society. Presidents, Secretaries-Treasurers, Directors-at-large, Managing Editors, Newsletter Editors, Webmasters, AASP founding members, annual meeting organizers, committee members and chairs, Foundation members, and those who have worked behind the scene have given their time, talent and treasure.

Ian Harding, John Marshall and their graduate students organized a very successful 44th annual meeting at the National Oceanographic Centre in Southampton. All the planned events (excluding the weather?) ran smoothly. Details about the meeting can be found elsewhere in this newsletter.

Managing Editor Jim Riding has worked closely with Taylor and Francis (T&F), publishers of *Palynology*, to make it a journal every member should be proud of. Before T&F took over publication, AASP founding member Bob Clarke handled the typesetting of the journal for decades, and is still very active on the AASP Foundation.

Palynology as a science continues to evolve especially as it is integrated with other geological, science and even engineering disciplines. This also ensures that it reaches a much wider audience and helps grow our membership base.

Managing Editor's report

The content of *Palynology* Volume 35 Part 2, which will be published in December 2011, has now been finalised. This part will contain the five papers listed below, in that order. I am pleased to report that manuscript submission rates continue to be extremely healthy and I have a significant number of papers which are currently in review and production. Because of this, we are expanding the page budget for the journal from 300 to 350 pages as from 2012.

Taylor and Francis are now publishing completed manuscripts online as soon as they are finalised. Two papers, de las Mercedes Sosa et al. and Verhoeven and Louwye, are now published online on the *iFirst* system. These papers will both be paper-published in Volume 36, part 1 (June 2012). When an article is published online, the corresponding author receives an email with a link to the online article. A username is provided in the email, and authors will need to create a password if they do not already have one. A link in the email gives information on access to *iFirst* for all non-corresponding authors. All subscribers with electronic access to the journal can also access *iFirst* articles. This is a major step forward for us, and it allows authors to quote electronically-published articles prior to printing.

Taylor and Francis are also putting *Palynology* onto their Accepted Manuscript Online (AMO) workflow system. Here the final, accepted (but unedited and uncorrected) manuscript is posted online in HTML form, normally seven working days after receipt by Taylor and Francis. The posted file is clearly identified as an unedited manuscript that has been accepted for publication. Copyediting, typesetting, and review of the resulting proof are then undertaken on this manuscript

before final publication. During production and pre-press, errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal relate to the AMO version. Rapid final publication via *iFirst* and in print remains our priority. However, AMO enables us to post accepted content online within a significantly shorter timeframe, hence maximising the visibility of articles with minimal impact on the publication schedule. Henceforth, any accepted articles that have not yet been copyedited or typeset will be sent for HTML tagging, and after final checks, they will be posted online.

I can confirm that Taylor and Francis wish to change the citation style of references to a more standard format in order to speed up the copyediting and proofreading process. Periods after initials will be removed (except for the one after the final author's name), and there will be no comma between the journal name and the volume number. The journal titles will continue to be in italic font and quoted in full. The online Instructions for Authors will be emended with these changes. An example of the new reference style is as follows:

Jaramillo, C A, Rueda, M, Torres, V. 2011. A palynological zonation for the Cenozoic of the Llanos and Llanos Foothills of Colombia. *Palynology* 35, 46-84.

As ever, if you have any questions regarding the online manuscript submission system for *Palynology*, please address them to Daniel Jones at Taylor and Francis (email: Daniel.Jones@tandf.co.uk), copying me in. If you need to speak to Daniel, his office telephone number is +44 (0)20 337 73602.

James B. Riding
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Kingsley Dunham Centre
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Nottingham NG12 5GG
United Kingdom
Tel: +44 (0)115 9363447
E-mail: jbri@bgs.ac.uk
November 2010



Papers to be published in *Palynology* Volume 35, Part 2 (December 2011)

Cook, E.J., van Geel, B., van der Kaars, S. and van Arkel, J. A review of the use of non-pollen palynomorphs in palaeoecology with examples from Australia, 24 p.

Zetter, R., Farabee, M.J., Pigg, K.B., Manchester, S.R., DeVore, M.L. and Nowak, M.D. Palynoflora of the late Paleocene silicified shale at Almont, North Dakota, USA, 33 p.

Peyrot, D. Late Cretaceous (Late Cenomanian–Early Turonian) dinoflagellate cysts from the Castilian Platform, northern Spain, 34 p.

Jan, I.U. and Stephenson, M.H. Palynology and correlation of the Upper Pennsylvanian Tobra Formation from Zaluch Nala, Salt Range, Pakistan, 14 p.

Leal, A., Berrío, J.C., Raimúndez, E. and Bilbao, B. A pollen atlas of premontane woody and herbaceous communities from the upland savannas of Guayana, Venezuela. 41 p.

Electronically published manuscripts currently on *iFirst*:

de las Mercedes Sosa, M., Panseri, A.F. and Salgado, C.R. Pollen morphology of eight species of *Stemodia* (Plantaginaceae) from South America, 9 p.

Verhoeven, K. and Louwye, S. *Selenopemphix islandensis* sp. nov.: a new organic-walled dinoflagellate cyst from the Lower Pliocene Tjörnes beds, northern Iceland, 16 p.

How to: receive emails alerts when new content is published online

How to: access content when it is published online

This document explains how you can:

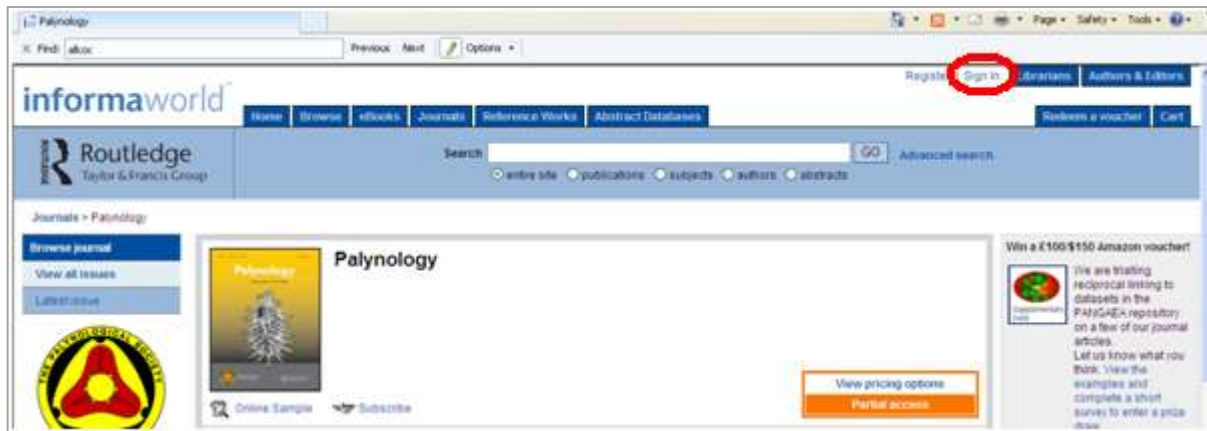
- sign up to receive email alerts whenever new content is published online
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1) You should have been contacted via email by support@informaworld.com with a unique username and password for you to access journal content. Firstly you need to click on the 'voucher' link within the email message to activate your access.

Once step 1) is complete follow the following steps (you need to follow these each time you visit the journal's homepage and wish to download content):

2) Go to your journal's homepage: www.informaworld.com/TPAL

3) Click on 'Sign In':



4) This opens out a space at the top of the page for you to enter your username (usually your email address) and password. If you have forgotten your password please click on 'forgotten password'; this will generate a prompt to your email address.



5) Once you're signed in you will be able to:

- i) Access all back content:

Palynology

AAASP - The Palynological Society
2009 Impact Factor: 0.862 Increased by 184% on 2008!
ISSN: 1550-8180 (electronic); 0191-6122 (paper)
Publication Frequency: 2 issues per year
Subjects: Micropalaeontology; Palaeobotany; Palaeontology; Palynology; Plant & Animal Ecology; Plant Morphology; Plant Taxonomy; Quaternary Science
Publisher: Taylor & Francis
Also incorporating: Geoscience and Man

Full access

ii) Sign up for alerts (click on 'Alert me'):

International Journal of Odonatology

Full access

Alert me

6) If you sign up for alerts, you will automatically receive an email when new issues are published online:

International Journal of Odonatology - Informaworld new issue alert

alerts@informaworld.com

From: Thu 18/05/2011 04:27

To: [redacted]

Click [redacted]

International Journal of Odonatology Volume 14 Issue 1 is now available online at Informaworld™
This new issue contains the following articles:

Original Articles

Spatial displacement of Odonata in south-west Siberia Pages 1 - 10
Authors: Anatoly Hukhlov, Olga Popova
DOI: 10.1080/13687890.2011.568198

A synopsis of the genus *Abinagrion* with description of two new species from the Philippines (Odonata: Megapodagrionidae) Pages 11 - 31
Authors: Vincent J. Kakman, Reagan Joseph T. Villanueva
DOI: 10.1080/13687890.2011.568193

Emergence patterns and adult flight season of Anisoptera at a managed wetland site in Hong Kong, southern China Pages 33 - 48
Authors: Pauline T. Poon

REMINDER:

**AASP
supports
students!**

**AASP
Student Scholarship
Applications
Due March 31, 2012**

AASP Student Scholarships are awarded annually to support studies in palynology. These comprise two scholarships for US\$2000 each. Ordinarily, the scholarships will be offered to beginning graduate students, but advanced undergraduates may also apply. 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 the 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 these students need not be members of AASP.

Application forms can be downloaded from our website at <http://www.palynology.org/content/scholar.html>

Advice on preparing an effective application for an AASP Student Scholarship

The single most valuable piece of advice is “know and write to your audience.”

You have only a very limited space to describe your project, so use the words wisely. Writing briefly is more difficult than writing at length, but is worth the effort. Literature review should be at a minimum. Keep in mind that the Awards Committee does not know all the context for your project, and may not even have a closely related specialty in palynology. Thus it is important to write for this broader audience. It can be a good idea to show your text to someone who is not a palynologist or involved in the project to see if they understand your description well.

It is fine to have a project that integrates palynology with other data, but be sure to make clear what palynological work you will be performing. If there is prior palynological work, explain how your approach is new or different.

Application materials should be sent electronically to the Chair of the AASP Awards Committee:

Martin Farley
Dept. of Geology & Geography
University of North Carolina at Pembroke
mbfarley@sigmaxi.net

2012 AASP-The Palynological Society Open Travel Awards:

We are pleased to announce that AASP-TPS will award grants to support student travel to give presentations at appropriate geological meetings in 2012. This is an open competition, for attendance at and participation in geological meetings of all scope and scale to be held during the calendar year of 2012.

Procedures for Travel Grant Application: Amount of travel award is variable based on need. The committee has \$1500 to divide at its discretion, but we anticipate that awards will be at least \$500 each.

Applicants are required to prepare:

- 1) A one paragraph justification for the request plus the abstract submitted for the presentation.
- 2) One paragraph outlining how participation in the particular geological meeting, and presentation of palynological research, will be of benefit.
- 3) A simple budget outlining the requested amount and how the funds would be used. We suggest that the AASP-TPS award be used to offset the cost of airfare to the meeting.
- 4) Applicant's email address.

Then the applicant's advisor should send these items with a brief explanation of how attendance at the particular geological meeting will benefit the student.

Travel Grant Applications are due on December 1st, 2011

Travel Grant Applications should be submitted to the chair of the awards committee who will make recommendations after consultation with the committee. Submission should be made via email to:

Martin B. Farley
mbfarley@sigmaxi.net

Geology, Old Main 213
University of North Carolina at Pembroke
Pembroke, NC 28372

**Deadline:
December 1st!**

**Deadline:
February 1st!**

**A PhD studentship is available for the NSERC-funded program
"Plio-Pleistocene dinoflagellate cysts and paleoceanography
of the North Atlantic region"
in the Department of Geology, University of Toronto, Canada.**

Description of PhD project:

The North Atlantic Current (NAC) and thermohaline circulation are major drivers of global climate change, transferring heat and moisture to high northern latitudes. Moisture is necessary for ice sheets to accumulate, thereby increasing albedo and causing global temperatures to drop. Hence, the Northern Hemisphere, through its capacity to grow extensive continental ice sheets, has been a major amplifier of global climate change at least since the Late Pliocene. The changing dynamics of the NAC and polar front are accordingly critical to our understanding of past and future climates.

The project will focus on several discrete intervals of the Pliocene, including Marine Isotope Stage (MIS) M2 which occurred 3.29 million years ago and represents the first severely cold episode of the Pliocene. Described as an early failed attempt by the climate system to reach a full glacial state, MIS M2 represents instability in the NAC (e.g. De Schepper, Head & Groeneveld, 2009) that was followed immediately by sustained warmth in the early Late Pliocene.

A novel combination of proxies (dinoflagellate cysts, alkenones, foraminiferal Mg/Ca ratios and oxygen isotopes, ice-rafted debris) will be used to reconstruct sea-surface temperature, salinity, evidence of ice melting, and NAC strength. The resulting reconstructions will provide boundary conditions for NAC shut-down/recovery, and will be used in conjunction with the HadCM35 coupled ocean-atmosphere general circulation model to simulate conditions during MIS M2 and other time slices.

The project, under the supervision of Prof. Martin J. Head, will include collaboration with Dr Stijn De Schepper (Bergen University, Norway), Dr Jeroen Groeneveld (Bremen University, Germany), Prof. Jörg Bollmann (University of Toronto), and Prof. Alan Haywood (University of Leeds, UK). It is scheduled to begin September 2012.

Recent literature relevant to project:

De Schepper, S., Head, M.J., Groeneveld, J. 2009. North Atlantic Current variability through marine isotope stage M2 (circa 3.3 Ma) during the mid-Pliocene. *Paleoceanography*, 24: DOI: 10.1029/2008PA001725.

De Schepper, S., Fischer, E., Groeneveld, J., Head, M.J., and Matthiessen, J., 2011. Deciphering the palaeoecology of Late Pliocene and Early Pleistocene dinoflagellate cysts. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 309: 17-32.

How to apply:

The on-line application for admission to the Fall (September) 2012 session at the University of Toronto, Graduate Department in Geology, is now available.

- 1) Please go to the Geology website at <http://www.geology.utoronto.ca>
- 2) Click on the Graduate Studies photo
- 3) Scroll down to Prospective Students
- 4) Click on HOW TO APPLY, read carefully and follow the instructions.

Although the application deadline is February 1, 2012, please check the on-line application for admission SOON to determine how much time is needed to assemble all the necessary documentation. For any questions relating to this project, please contact Prof. Martin J. Head (mhead@brocku.ca).

Martin J. Head, PhD, C Geol
Professor
Department of Earth Sciences
Brock University, Canada

Professor (status only)
Department of Geology
University of Toronto, Canada

Application deadline: FEBRUARY 1, 2012.

A satellite image showing the Black Sea, the Mediterranean Sea, and the surrounding landmasses of Europe, Africa, and Asia. The Black Sea is a large body of water in the center, with the Mediterranean Sea to its south. The surrounding land is green, and the surrounding ocean is blue. A large white cloud formation is visible in the lower right corner of the image.

Quantitative reconstruction of climate change in the Black Sea-Mediterranean corridor using Biomisation

Principal investigators:

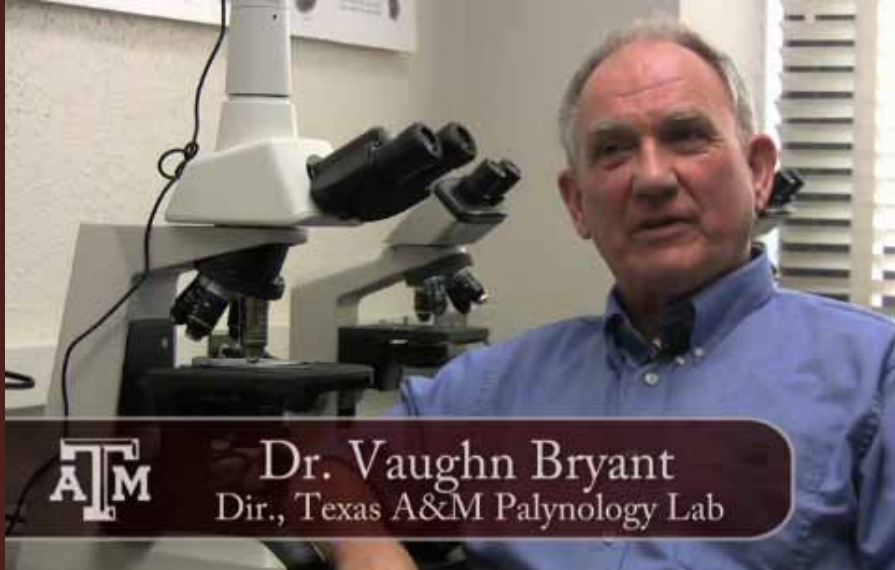
Elena Marinova¹, Petra Mudie^{1,2}, Suzanne Leroy³, Sandy Harrison⁴ and IGCP-521, WG2 members

1 Earth Sciences Department, Memorial University of Newfoundland, 2 Dalhousie University, Halifax, Nova Scotia, 3 Institute for the Environment, Brunel University, London, 4 Department of Biological Sciences, Macquarie University, Australia

In May 2011 at the Memorial University of Newfoundland, a new attempt has started to bring forward the international collaborative project, named Eastern Mediterranean-Black Sea-Caspian-Corridor Biomes (Acronym = EMBSeCBIO). The studies will focus on new techniques of biomisation for quantitative reconstruction of vegetation responses to climate change in the Black Sea-Mediterranean Corridor, as a contribution to the IGCP-521 program of the Working Group 2: Palynology. The Black Sea region is presently located in a key geographic area where climate is strongly affected by two major systems: the winter North Atlantic/Siberian pressure system and the Indian summer monsoon. This makes the region especially relevant for study of past climate changes using long, radiocarbon-dated pollen records. These records could then be used for quantitative paleoclimate reconstructions, verification and tuning of paleohydrological models, leading to better estimates of past Great Flood volumes and understanding of the driving forces of climate changes in the earth system. The biomisation method provides a robust approach to investigating past climate – independent from modern analogues of vegetation. It is suitable to quantify past climate changes, notably for periods of large variations in climate such as the transition between Glacial and Interglacial periods. The primary aim of the EMBSeCBIO project is to reconstruct the vegetation cover for the Black Sea-Mediterranean corridor for time periods when great transformations of the basins took place, like 21 cal. ka BP, 8.2 cal. ka BP. The project will further provide robust and up-to date paleoclimate parameters for other periods of crucial interest – to aid in understanding the impact of sea level changes and climate on human adaptations in the region for the last 30 ka BP. A total of 11 nations and 17 palynologists are participating in this project.

Top Pollen Detective Finds Honey a Sticky Business

by Andrew Schneider | Nov 07, 2011



COLLEGE STATION, Texas

Vaughn Bryant peered through the eye piece of his microscope, making infinitesimally small adjustments on the position of the slide beneath the lens.

"Nothing," he said, and switched the slide for another.

Thumbnail image for food-safety-news-Vaughn-Bryant-honey-tester.jpg"Again, nothing," he said after about 40 seconds, and substituted another glass slide with a smudge in its center.

"OK. We've got clover. Some nice cherry, plum and rose."

Moving the slide a bit, the professor of anthropology and director of Texas A&M's palynology research laboratory added:

"I see some blackberry, a couple of birch. Looks like a good Northwest collection."

Bryant was not looking at the makings of a dessert or a salad. He was analyzing some of the more than 60 samples of honey that Food Safety News bought in grocery stores, at farmers markets and in big box, natural food and drug stores across the country.

The results of Bryant's analysis, which Food Safety News paid for, found that more than 75 percent of honey sold in the U.S. has had its pollen filtered out.

The food safety divisions of the World Health Organization, the European Commission and dozens of others have ruled that without pollen there is no way to determine whether the honey came from legitimate and safe sources.

Food Safety News asked Bryant to look for pollen because that's what palynologists do. But Bryant is also a melissopalynologist, which means he also specializes in the study of pollen in honey.

The professor entered the sticky world of honey in 1976, when he was asked by the Office of Inspector General of the U.S. Department of Agriculture to examine domestic honey purchased by the federal government as part of its farm subsidy program, so U.S. beekeepers would have a stable outlet for their honey.

He refined the analytical protocol he would use as he went along, diluting small amounts of honey, then washing them in various acids, some very volatile. Then he heated, washed, centrifuged, rewashed, treated with more acid, heated and centrifuged them one last time. The acids destroys everything in the honey but pollen.

He inspected a wide range of government-supplied samples and, in 94 percent of the cases, found pollen that was linked to nectar sources from the U.S. But 6 percent of the samples showed that foreign honey, mostly from Mexico's Yucatan Peninsula, was being sold back to the government fraudulently.

Today, half of Bryant's work involves forensic pollen studies; another 25 percent involves archaeological sites and the rest is pure pollen and honey research.

There are 250,000 different plants just in the United States that can be used by a honey bee, Bryant said. He can easily identify hundreds of the more common pollens on sight. In his lab, two walls are covered with huge charts of enlarged grains of pollen. In the next room, another wall holds cabinets that contain a \$2 million collection of slide-out trays cataloguing 20,000 modern pollen samples from around the world, mostly donated by oil companies.

Since much of his work may involve honey products transshipped from China he has worked hard to get samples and reference material on Asia honey and pollen.

"So I've got every Chinese pollen book that I can get my hands on that shows me the pollen types that exist in China and neighboring countries, such as Vietnam, Cambodia, Indonesia and Taiwan," he said.

This type of pollen analysis at the few labs in Europe that offer it can run \$1,200 per sample or more according to honey packers who use the service. Bryant often charges far less than \$100 for his basic pollen identification. That's "barely enough to cover chemicals and supplies," especially when he's doing it as a service for mom-and-pop-sized beekeepers and honey packers, he said.

His customers are honey importers who want to know whether they're really getting what they're paying for from foreign suppliers and beekeepers who send him samples, so they can track what their bees are harvesting and what they can accurately say on their honey's labels.

The 71-year-old professor also does forensic work for several federal investigatory agencies mostly involved with anti-terrorism and anti-smuggling efforts. He refuses to discuss any of this work for those clients.

"I am concerned about the import of unsafe products and about the government's apparent apathy towards trying to put a stop to the illegal importation of honey," Bryant said.

"I feel my efforts are helping to fight this battle."

Sometimes his pollen analyses are just fun.

Bryant was asked to analyze the honey produced and served by the White House to determine where the bees are sourcing their pollen. Bryant concluded that the White House honey is classified as a unifloral clover honey, but also contains minor amounts of nectar from other nearby sources, including dogwoods, honeysuckles and magnolia.

Pollen and history

About 70 years ago, before radio-carbon dating, Bryant explained, archaeologists were originally using pollen collected from their artifacts to attempt to confirm the age of their discoveries. Geologists started collecting fossil pollen from deep underground looking for sediment in various strata, dried up lake beds and other geological sites that have repeatedly been shown to be likely sites of oil and gas reserves.

Pollen specialists have been recruited by leading

museums and art galleries to authenticate the source of furniture, painting and sculptures.

One of the earliest well-publicized studies was of the microscopic grains of pollen collected from the Shroud of Turin in the mid-70s by botanist and Swiss criminologist Max Frei. Frei's analysis had identified pollen spores of 58 different plants, many that originated only in and around the site of the crucifixion.

Forensic palynology - the identification of ancient and modern pollen to solve crimes - developed slowly.

One of the earliest cases of using technology to catch a criminal was in 1959, when Austrian police tried to tie a suspect to a man reported missing while on a trip along the Danube River, Bryant said.

The missing man's body had not been recovered but police believed the suspect had a motive for the crime. Mud found on the suspect's boots was analyzed by a palynologist from the University of Vienna. He identified several common tree pollens but also a unique fossil grain of hickory -- a precise mixture of pollen that was only found in one small area along the Danube. The revelation of this information by police so spooked the suspect that he confessed and showed police where he had buried the body.

Scientific and criminology journals show that detection and identification of pollen has been used in cases ranging from kidnapping, rape, homicide, smuggling, counterfeiting, wildlife violations, terrorism and a litany of other themes in waiting-to-be-written crime novels.

Bryant continues to run his mostly one-person CSI operation but he says the government needs to do more.

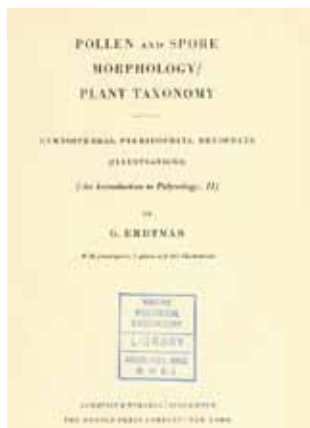
"We must get our government to test samples -- not just the paperwork on imported honey - but actually look at the honey itself," he said.

He also believes the government must impose "truth in labeling" for honey.

"Most other countries do this, so why don't we?" he asked.

"If people were certain they were buying what is on the label, I suspect they might be willing to pay premium prices. Right now it is a crap shoot. You may or may not get what it says on the label and that's wrong."

Palynological news



Martin Farley informed me that a scanned version of Gunnar Erdtman's 1957 volume "Pollen and spore morphology/plant taxonomy; gymnospermae, pteridophyta, bryophyta " is available on the web at <http://www.archive.org/details/biodiversity>.

For a direct access:
<http://www.archive.org/details/pollensporemorph00erdt>

For those of us who neglected to buy a copy when it first came out, possibly because we weren't yet born, this can be handy. There is also an assortment of classic megafossil paleobotany monographs (Berry, Lesquereux, Heer) at the same site.

PRICELESS

Check out this new microplaeontology blog:

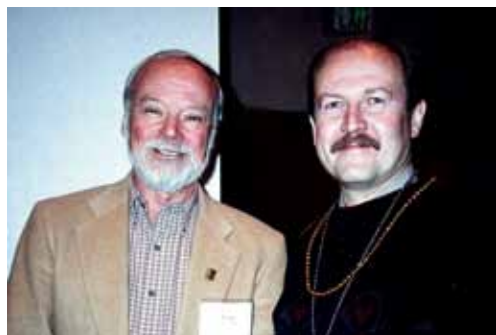
<http://www.nhm.ac.uk/natureplus/blogs/micropalaeo/2011/10/21/palynology-database-holds-the-key-to-climate-change-study>

NEW BLOG

To receive e-mail updates of future posts, create an account in Nature Plus, log in and choose "watch this blog" from the right hand side menu.

The blog is handled by:

Dr C. Giles Miller, Senior Curator,
Micropalaeontology, Department of Palaeontology
Natural History Museum, Cromwell Road, London SW7 5BD



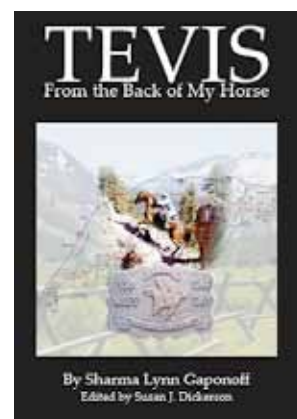
A Special Volume of *Palynology* honoring Doug Nichols' life-long devotion to palynological research is almost complete. We will keep you informed.

To the left: "Douglas Nichols and Thomas Demchuk at the Reno, Nevada AASP Meeting, in 2000." Photograph by Susan A. Jarzen.

NICHOLS

PAST
PRESIDENT

Former AASP President, Sharma Lynn Gaponoff has written a book entitled *Tevis, From the Back of My Horse*, and it is now hot off the press. It is a beautiful hardbound book with many color photos. She had help from none other than our very own Robert T. Clarke who did all the formatting of the book and worked with The Covington Group to get the book printed. Please visit Sharma's website if you are interested in her book which is a true story and a great adventure read whether or not you are a horse aficionado.
SharmaGaponoff.com.





AASP-The Palynology Society 44th Annual Meeting In case you missed it!



Report on the 44th Annual Meeting National Oceanography Center, Southampton, U.K.

The 44th Annual Meeting of AASP-The Palynological Society took place at the National Oceanography Centre, Southampton (NOCS) in southern England, September 5-7, 2011. Our hosts were Dr. Ian Harding and Prof. John Marshall of the University of Southampton. Approximately 85 participants registered to enjoy the coastal surroundings and the 4 days of technical lectures and fieldtrips. Although the weather was less than cooperative for much of the time, the sparse sunshine was amplified by the palynological camaraderie and warmth among the group.



The meeting started unofficially on Saturday, September 3rd with the Outgoing Board of Directors Meeting. On Sunday, fieldtrip participants survived the early morning deluge on the Isle of Wight, to be presented with sunny skies for the afternoon of investigating the magnificent Cretaceous and Paleogene exposures of Whitecliff Bay, and were joined by Geoff Eaton who kindly took a day out from his holiday on the island to provide additional explanation of the succession based on the extensive palynological work he had completed on the locality. Following a short period to catch their breath, the Icebreaker, sponsored by Taylor & Francis Publishers (the company that now produces the AASP-TPS journal *Palynology*),

took place in the general foyer area at the NOCS.

A special presentation was given by Prof. Margaret Collinson (Royal Holloway) who described recent research on the *Azolla* phenomenon of the Arctic Paleogene from a paleobotanical and palynological perspective.

The post-talk period involved continued hand-shaking and re-acquaintances, along with a sit-down meal in the waterfront canteen - and more beverages! Several large groups later headed off to enjoy the numerous pubs and fine restaurants of Southampton.

Much of Monday's technical sessions were given over to Paleozoic palynology, in honor of long-time AASP member Bernard Owens. The Bernard Owen Session was sponsored by CIMP, and included presentations by many of Bernard's long-time colleagues and collaborators.





The requisite AASP-TPS Business Luncheon was had at Monday noon at a nearby Indian restaurant. The venue was a welcome change from the usual rubber chicken luncheons, and included several Indian curry specialties to satisfy all tastes. During the formal business portion of the luncheon, AASP-TPS handed out awards to deserving members who have served the Society over the years. Honorary Membership was bestowed upon Bernard Owens for his life-long commitment to the Society and fostering the science of palynology worldwide, particularly his involvement in industry palynological activities in the Middle East and North Africa. AASP-TPS also recognized Thomas Demchuk with its Distinguished Service Award. Thomas has served as the Society's Secretary-Treasurer for the last 14 years, as well as earlier serving a 2-year term as Director-at-Large and being involved in the organization of several AASP-

TPS meetings and courses over the years. A hearty round of congratulations was given to Bernard and Thomas for their accomplishments.

The Business Luncheon further included a presentation by Jennifer O'Keefe extolling the virtues of Lexington, KY as the next locale for the 45th AASP-TPS Annual Meeting to be held in July 2012. The formal part of the luncheon came to a close as outgoing President Paul Strother presented incoming President Francisca Oboh-Ikuenobe with the ceremonial gavel and the Society's special copy of Roberts Rules of Order. This particular copy of Roberts Rules contains the signatures of all past Presidents of the Society. The afternoon technical sessions continued the Paleozoic theme, and ended with a reception in honor of Bernard Owens sponsored by Saudi Aramco. The meeting of the new Incoming AASP-TPS Board of Directors was held early that evening. The highlight of that Board meeting was a presentation by Claudia Rubenstein inviting AASP-TPS to hold its 2014 annual meeting in conjunction with the International Paleontological Congress to be held in Mendoza, Argentina. The Board heartily agreed to this wonderful idea.



The Tuesday technical sessions moved into younger territory with talks on the Mesozoic, covering aspects of miospore and dinoflagellate biostratigraphy from all corners of the world, ranging from Greenland to Antarctica and from NW Europe to South America and New Zealand via the Sudan. As the day continued, talks moved forward into the Cenozoic, with presentations on subjects ranging from the marine to terrestrial palynology from the PETM of Spitsbergen to the Neogene of Australia by way of the Miocene, before the technical sessions of the meeting concluded with three industrially-flavored talks on subjects as diverse as Neogene lake systems and deep-water turbidite sand packages.



The Tuesday evening Conference Dinner was a spectacular event held on the gun (cannon) deck of the historic British ship the HMS Warrior. The ship is in permanent dock at Portsmouth and serves as venue for such social events. Participants were able to investigate all aspects of this 19th Century ship, with guides ready to answer all questions. Meeting participants were welcomed aboard with a Pimm's reception, again sponsored by Taylor & Francis Publishers, this time to celebrate the publication of the 50th volume of Grana. Participants enjoyed a wonderful meal accompanied by diverse beverages: the dinner tables on the gun deck being situated between the cannon. After-dinner specialties included dessert and toasts with rum or port. AASP-TPS awards were presented for the L.R. Wilson Best Student Oral Presentation, Best Student

Top: Franca presents Stephen Lowe with prize for best poster. Middle: Bernard Owens accepting his award. Bottom: Conference dinner: Margaret Collinson, Vanessa Bowman and colleague, Pi Willumsen, Else Marie Friis, Ransgard Pedersen, Kaj Raunsgaard Pedersen, Adam Charles.

Poster Presentation, and Best Overall Poster. The winner of the L.R. Wilson Award was Kimberley Ball (*Late Campanian and Maastrichtian Pulcheripollenites: taxonomy, phylogeny and biostratigraphic utility, northwestern North America*), a M.Sc. student from the University of Calgary, and the winner of the Best Student Poster was Kara Bogus from Bremen University (*Variability in fossil dinoflagellate cyst wall composition as determined by micro-Fourier transform infrared (FTIR) spectroscopy*). Both students receive a cash award, two years membership of AASP-TPS, and a framed certificate. Winners of the Best Overall Poster were Keith Richards et al. for their presentation on the modern Volga Delta. All student registrants were presented with a small monetary award from sponsorship of the meeting kindly provided by The Micropalaeontological Society, to offset the costs of their attendances.



The merriment continued into the late evening as participants enjoyed the maritime

sounds of sea shanties provided by The Cabin Buoys (a pun lost on the North Americans!), a trio who kept everyone truly entertained with their lively music.



The conference concluded with a fieldtrip on the Wednesday to visit the UNESCO World Heritage Jurassic Coast of Dorset, taking in Lulworth Cove and Kimmeridge Bay (type section for the Kimmeridge Clay Formation and the Kimmeridgian stage), and bar the coach breaking down on the way into the village of Lulworth (!), everyone enjoyed the day tremendously.

Delegates left having commended the meeting most highly, and looking forward to next year's meeting in Kentucky.

Top: Geoff Eaton describing one of the sequence boundaries at Whitecliff Bay to Dave Shaw, Joyce Lucas-Clark, Ransgard Pedersen, Susanne Feist-Burkhardt and Stephen Louwye. Left: What were they thinking? Palynologists collecting giant forams from one of the Nummulites beds... Bottom: Conference delegates.



FIRST ANNOUNCEMENT

ADVANCED COURSE in Jurassic – Cretaceous – Cenozoic ORGANIC-WALLED DINOFLAGELLATE CYSTS

Morphology, Paleoecology & Stratigraphy

Utrecht, JUNE 25-29, 2012

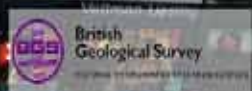


presented by

Henk Brinkhuis (Utrecht University, NL), Martin J. Head (Brock University, Canada)
Jörg Pross (Frankfurt University, Germany), James B. Riding (BGS, UK) and Poul Schiøler (GNS, New Zealand)

With contributions from Rob Fensome, Graham L. Williams (GSC Atlantic, Halifax, Canada),
Appy Sluijs, Francesca Sangiorgi (Utrecht University, NL), Martin A. Pearce (Statoil, Houston, USA) and
Roel Verreussel, Dirk Munsterman (TNO Utrecht, NL)

Pre-registration of interest and further information: Timme Donders (timme.donders@tno.nl)





SVP
SOCIETY OF
VERTEBRATE
PALEONTOLOGY

Palynology at the 2011 SVP Meeting

by Lanny H. Fisk

Some AASP members might be interested and pleasantly surprised to hear of the number of papers that included palynology were presented at the (SVP) meetings last month (2-5 November 2011) in Las Vegas, Nevada, USA. Yes; vertebrate paleontologists use palynology. The number of presentations that mentioned fossil pollen would seem to disprove the general sentiment that the members of the SVP (~2,000 worldwide with >20% outside North America) are not aware of the important information that palynology has to offer.

The first presentation that got my attention was a paper entitled “*Biome shifts with paleoclimate change*” presented by Jessica Blois from University of Wisconsin and co-authors in a symposium on “Climate change and vertebrate response”. In her presentation, Jessica acknowledged that global biome maps for the Last Glacial Maximum (LGM) to the mid-Holocene have been largely based on fossil pollen records. However, she then noted that these maps have large gaps in areas where pollen records are sparse. She then suggested that fossil mammal assemblages fill these gaps and, therefore, are a promising source of information about past biome distributions in areas where pollen records are not available. By integrating the mammal-based biome maps with existing pollen-based maps,

these authors extended biome reconstructions to places where pollen data are scarce, particularly in western North America. They concluded: “*In some times and places, plant-based and mammal-based biome maps are in strong agreement, but in others there is low concordance, raising new interesting questions.*” Jessica’s maps showing the sparse distribution of fossil pollen localities relative to the dense distribution of fossil mammal localities was rather shocking, but might at least in part be explained by the ratio of SVP members to AASP-TPS members (ca. ~2,000 vs ~500 or 4:1). Needless to say, palynologists have a lot of data to collect in order to provide a map distribution anywhere approaching the density of fossil mammal localities.

Other SVP presentations of possible interest to palynologists included a paper by AASP-TPS member Carole Gee, at University of Bonn, Germany on “*New evidence for conifer-dominated vegetation in the Morrison Formation in the western interior of North America*”. Based on multiple lines of new evidence, including recent discoveries of numerous fossil conifer cones and supported by conifer-dominated pollen samples, Carole suggested that the dominate Morrison vegetation was a forest containing a diversity of conifer trees. This new evidence, along with nutritional analyses of modern equivalents of

the Jurassic flora, offers evidence that Morrison sauropods may have fed on araucaria and podocarps, rather than cycads and ferns.

A poster presentation by Meena Madan and co-authors entitled “*Size and shape stasis in Rancho La Brea felids during the Late Pleistocene*” concluded that even though pollen studies provide evidence of dramatic climatic and vegetational change from the last Pleistocene interglacial through the LGM to the Holocene, none of the Rancholabrean large cats show any statistically significant differences in size or shape of their bones through this time of great environmental change.

In a paper entitled “*The Campanian vegetation of Laramidia*”, Ian Miller and Kirk Johnson, both at the Denver Museum of Nature and Science in Denver, Colorado, USA, noted that the palynological record shows three major North American provinces (*Normapolles*, *Aquilapollenites*, continental margin), which divided eastern North America and Laramidia into north-south longitudinal belts. They concluded that: “*This record indicates that geographic barriers like the Western Interior Seaway and the mountains of Laramidia served to segment pollen provinces but latitudinal expanses did not.*”

Hideo Nakaya, at Kagoshima University, Kagoshima, Japan, and co-authors reconstructed the paleoenvironments of the early Late Miocene primate-bearing Namurungule and Nakali Formations in Kenya from rodent faunas and stated that their interpretations were supported by pollen analysis of samples from both formations.

Stephen Rowland of the University of Nevada at Las Vegas, USA, and co-authors in a paper entitled “*The Wilkin-Quarry Rancholabrean biota of Lincoln County, Nevada*” reported on a highly diverse pollen assemblage recovered from isolated lenses of silt in otherwise coarse gravels. This Late Pleistocene palynoflora including approximately 30% high-spine Asteraceae, about 20% Cheno-Am pollen, and abundant *Artemesia*.

They interpreted the pollen assemblage to reflect a cold desert setting, but noted that *Larrea* (creosote), a hot-desert genus, is also anomalously present. Other pollen present include oak, alder, pine, juniper, sedges, and roses. They interpreted the biota and associated sediments to represent a floodplain ecosystem with a shallow, gravel-bed river and finer-grained deposits representing abandoned channels which became marshy pools. They concluded that: “*Alder was a conspicuous riparian species, with a woodland of oak, juniper, and pines occurring in nearby drier habitats.*”

In a paper on the “*Diet of large ungulates from Middle and Late Pleistocene of UK and Germany*” Juha Saarinen and co-author, both from the University of Helsinki, Finland, used tooth wear analysis for dietary analyses and noted that their results showed a good correlation with non-arboreal vegetation based on pollen percentages.

Finally, Richard Stucky from the Denver Museum of Nature & Science in Denver, Colorado, USA, and co-authors reported on the western Colorado late Pleistocene interglacial/glacial site known as “Snowmastodon”, which has produced at least eight mastodons and four mammoths. To interpret the paleoenvironment of the site, these authors used pollen, along with leaves, wood, invertebrates, and small vertebrates, concluding that: “*Changes in sedimentation, fauna, and pollen, track complex climatic changes reflecting a transition from warmer and moister (MIS 5e) to cooler and drier (MIS 5a-d?) conditions.*”

In summary, palynology is much more widely used among the vertebrate paleontologists than I realized. They just present their research in a different venue and to a different audience than AASP-TPS. Cross fertilization can result in hybrid vigor.



45th Annual Meeting of AASP – The Palynological Society University of Kentucky, Lexington, KY July 21 – 25, 2012

Conference Co-Hosts

Cortland F. Eble, *Kentucky Geological Survey*
Jennifer M.K. O’Keefe, *Morehead State University*

Devonian – Carboniferous Symposium in Honor of Geoff Clayton and Ken Higgs Co-chaired by Zélia Pereira and Reed Wicander

A CIMP-sponsored symposium will be convened at the Lexington meeting in honor of Dr. Geoffrey Clayton and Dr. Kenneth Higgs. For more than three decades, Geoff and Ken have made tremendous contributions to our understanding of Late Paleozoic palynology. Lexington, surrounded by Late Paleozoic age strata, is a perfect venue to celebrate their contributions to late Paleozoic palynology!



Geoff



Ken

Pre-Meeting Field Trip, July 21, 2012

A pre-meeting trip to Natural Bridge State Resort Park (www.parks.ky.gov/findparks/resortparks/nb), located approximately 80 miles SE of Lexington is planned. This will provide attendees a chance to enjoy one of Kentucky’s most scenic areas. The centerpiece of the park is a “natural arch” of Early Pennsylvanian sandstone that has been undercut by erosion. The park is transected by several well-maintained walking trails that afford easy access to this beautiful area. The park also has a very comfortable lodge and restaurant.



View from the natural bridge in early fall

Post-Meeting Trip, July 25, 2012

The post-meeting trip will explore several world-class outcrops that expose Devonian and Carboniferous strata, focusing primarily on the Devonian “black shales.” These shales are the principle source of natural gas production in Kentucky, and are being studied for their potential as a reservoir for CO₂ sequestration and enhanced gas production. The shales were deposited during a time of explosive land plant expansion and diversification. From the Middle to Late Devonian, we see the emergence of all the major plant groups that would later contribute to the vast coal accumulations deposited during the Pennsylvanian. Both macro- and micro- fossils are common and collecting is encouraged.



Devonian Shale Outcrop at Vanceburg, KY

Draft Meeting Schedule

- Saturday, July 21, 2012 –** Pre-meeting field trip to Natural Bridge State Park. Depart 8 AM, return 4 PM.
- Sunday, July 22, 2012 –** Meeting Ice-Breaker at the University Faculty Club, 6 PM – 9 PM.
Optional afternoon trip.
- Monday, July 23, 2012 –** General Presentations/posters, 8 AM – 12 PM,
Devonian – Carboniferous Symposium 1 PM – 5 PM.
“Walking tour” of the campus for spouses/guests.
Meeting Banquet at the University Faculty Club, 6:30 PM – 9:30 PM.
- Tuesday, July 24, 2012 –** Presentations /posters, 8 AM – 12 PM, 1 PM – 5 PM.
Business Luncheon at the University Faculty Club, 12 – 1 PM
- Wednesday, July 25, 2012 –** post-meeting field trip, Devonian and Carboniferous Strata. Depart 8 AM, return 6 PM.

Lexington, Kentucky

The 2012 Annual Meeting of AASP – The Palynological Society will be held in Lexington, Kentucky, U.S.A., on the campus of the University of Kentucky. Lexington is located in the heart of the Bluegrass, an area known for its gently rolling terrain and numerous horse farms. The meeting will be held on the University of Kentucky campus. It is co-hosted by the Kentucky Geological Survey (KGS), which is a research/public service institute of the University of Kentucky, and the Department of Earth and Space Sciences at Morehead State University. Morehead State University is located an hour to the east in the midst of the hills and mountains of the “Knobs,” surrounded by exposures of Devonian and Mississippian-age rocks.

Lodging

Lexington is a city for everyone’s budget! It has more than 50 motels/hotels, including a Hilton and a Hyatt Regency, with prices ranging from \$42 - \$200. In addition, lodging in the Towers dormitories will be available (estimated cost \$25/night). All rooms in the Towers have private baths, and the dormitory structure is located within easy walking distance (10 minutes) to/from the KGS.

Arrival/Departure

Air

Lexington, Kentucky is serviced by several major airline carriers, including Delta, United, Continental, and U.S. Airways, via Bluegrass Airport (www.bluegrassairport.com). Lexington is an easy hour’s drive from two larger airports, the Cincinnati - Northern Kentucky International Airport (www.cvgairport.com), and the Louisville International Airport (www.flylouisville.com).

Note: there is no public transit between either of these airports and Lexington.

Ground

Lexington is located at the juncture of two major U.S. Interstate highways, I-64 (E-W) and I-75 (N-S), and is within easy driving distance from several major U.S. cities. Greyhound bus lines also has service to/from Lexington (www.greyhound.com).

Additional Meeting Information

Please visit the Palynological Society website (www.palynology.org) for updates on the 2012 meeting in Lexington. Kentucky!



IPC XIII / IOPC IX 2012

TOKYO

Descriptive title	Palynological processing in the 21 st Century: innovative, safer, non-acid based techniques for processing palynology samples
Key words of discipline	hydrofluoric acid, dispersants, palynology processing techniques, palynomorph recovery
Organizer(s)	<p>¹Vladimir Torres, ¹Niall W. Paterson, ¹Yow-Yuh Chen, ¹John H. Carter, ²James B. Riding, ³Jen O'Keefe.</p> <p>¹ Biostratigraphy Core Group, ExxonMobil Exploration Company, 233 Benmar Drive, CORP-GP3, Houston, TX 77060</p> <p>² British Geological Survey, Kingsley Dunham Centre, Keyworth, Nottingham, UK, NG12 5GG</p> <p>³ Department of Earth & Space Science, Morehead State University, 404A Lappin Hall, Morehead, KY 40351, USA</p>
Contact email address	vladimir.torres@exxonmobil.com , niall.w.paterson@exxonmobil.com ,
Purpose	<p>The purpose of the proposed symposium is to discuss recent advances in the processing of palynology samples, especially those related to laboratory safety improvements and the use of environmentally friendly chemicals. Traditionally, palynological processing has relied upon the use of inorganic chemicals, such as hydrofluoric acid (HF), nitric acid (HNO₃) and hydrochloric acid (HCl). Recent publications have demonstrated that palynomorphs may also be extracted by the use of various alternative techniques and chemicals, obtaining comparable or superior palynomorph recovery. Globally, increasingly strict environmental safety regulations create the incentive for transition towards alternative methods which mitigate the exposure of lab personnel to hazardous chemicals and reduce their impact upon wildlife and communities. We welcome contributions for methods applicable to recent and fossil material of all ages.</p>



We cordially invite proposals again for symposia for IPC XIII / IOPC IX 2012, the joint meeting of the 13th International Palynological Congress and 9th International Organization of Palaeobotany Conference to be held on August 23-30 2012 at Chuo University in Tokyo, Japan, as previously planned (http://wwwsoc.nii.ac.jp/psj3/ipc13japan/Announcement_June2010/index.htm).

The theme of the IPC/IOPC 2012 is "Palynology and Palaeobotany in the Century of the Environment". Proposed symposia could come from various disciplines such as Palaeobotany, Palaeoecology, Palaeoclimatology, Biostratigraphy, Plant taxonomy, Plant morphology, Cell biology, Aerobiology, Allergology, Melissopalynology, Forensic palynology, etc.

We also welcome symposium proposals including leading-edge techniques.

If you are interested in organizing a symposium, please prepare a "pre-proposal" that briefly describes the symposium in English.

This pre-proposal should include the followings.

Please use the attached file to submit the pre-proposal.

1. A descriptive title
2. One or two paragraphs explaining the purpose of symposium
3. A tentative list of speakers (unconfirmed), their institutions or affiliations, and preliminary presentation titles

We will accept only one symposium proposal from each individual.

Please send the pre-proposal to the program committee (program.ipc.iopc.2012@gmail.com), and use the subject heading: IPC/IOPC 2012 Symposium proposal.

The program committee will review the pre-proposals and may make suggestion in view of organization of whole symposia.

For example, the committee may request merging of proposed symposia with similar topics.

We also welcome workshop proposals.

More information about the IPC/IOPC 2012 is available at http://wwwsoc.nii.ac.jp/psj3/ipc13japan/call_for_symposia/index.htm

We are preparing for a call for applications of Symposium Proposals, which will start in July. We would like ask you the application by two steps:

1st step: pre-proposal (dead line 31 August, 2011) 2nd step: proposal (dead line 31 October 2011)

We look forward to receiving your contributions.

Best wishes

Organizing committee

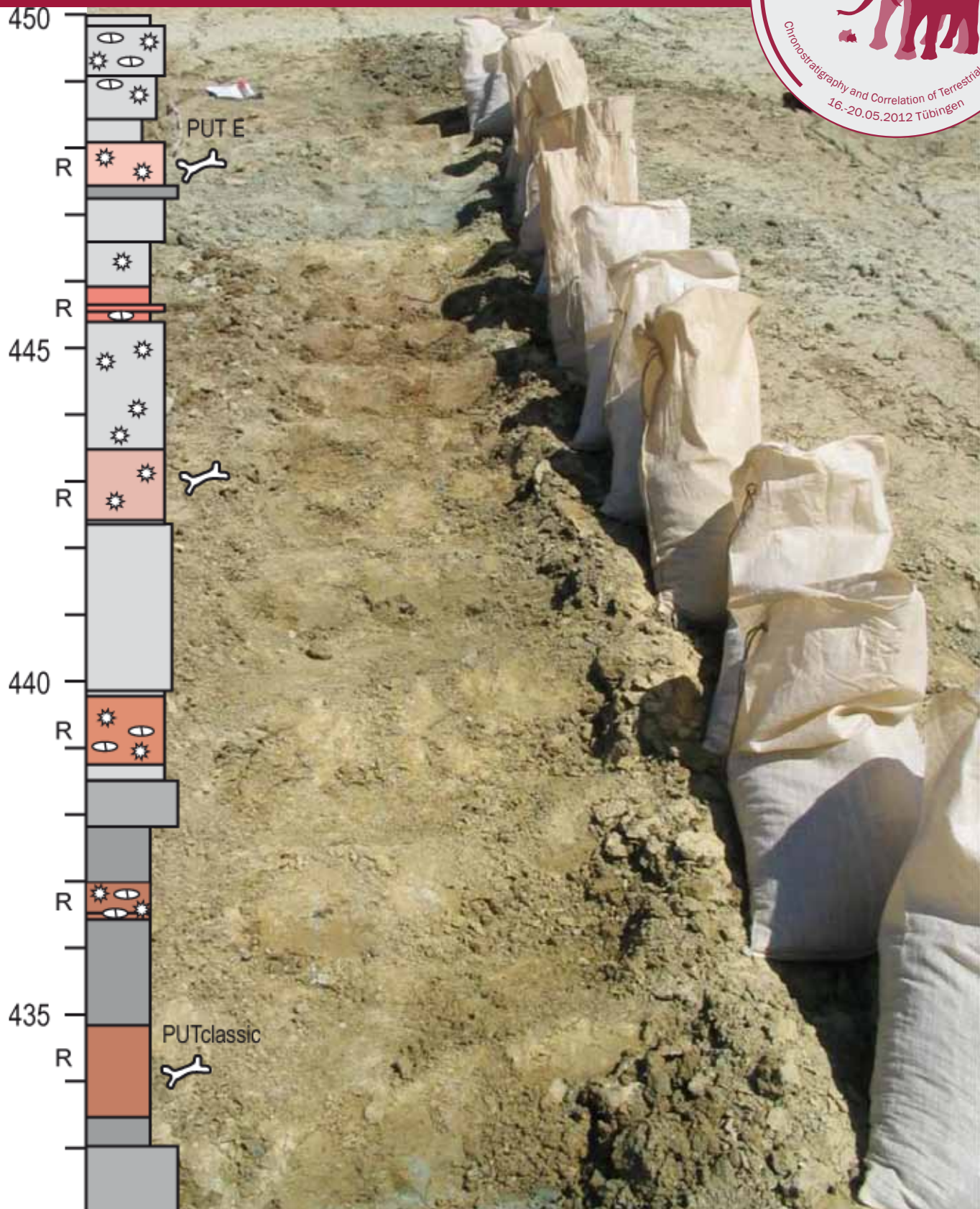
Program committee

IPC XIII / IOPC IX 2012

program.ipc.iopc.2012@gmail.com

Chronostratigraphy and Correlation of Terrestrial Sediments

RCMNS Workshop May 16th - 20th, 2012 Tübingen - Bad Krumbad



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∞Wonderful camaraderie

∞Exciting field trips



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April 11-14, 2012

ethnobiology.org

