A.A.S.P. NEWSLETTER

Published Quarterly by the American Association of Stratigraphic Palynologists Inc.

September 2003
Volume 36, Number 3

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)

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$1000. 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 U$15.00 for Africa, Asia & the Pacific region (includes Australia and New Zealand).

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Carlos Jaramillo, Editor

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 December 1, 2003. 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 James B. Riding

As we approach the 2003 AASP Annual Meeting at St Catharines, this will be my last President's message in the Newsletter. Sharma Gaponoff will become President at the Business Luncheon on October 8th. I would like to take the opportunity to thank all the members of the Board of Directors for their dedication and hard work during my brief tenure as President. AASP is extremely lucky to have a very enthusiastic and driven team. In particular, thanks are due to Thomas Demchuk, our Secretary-Treasurer. In addition to being an extremely hard-working and efficient Secretary-Treasurer, Tom has an encyclopedic knowledge of the AASP bye-laws and can quote them verbatim at will. If there are any procedural questions, Tom will always advise quickly and decisively. Every Board of Directors needs a Thomas Demchuk. David Pocknall, the past-President has always been there with good advice throughout. David has served the AASP Board long and well and we will miss him greatly. Golf's gain is AASP's loss indeed.

In Owen Davis we have an excellent Managing Editor. Amongst many other things, he has worked extremely hard to bring forward the publishing cycle of *Palynology* such that the Journal can be distributed to the members who attend the Annual Meeting. All being well, *Palynology* volume 27 will be available in October at St Catharines. Thanks are also due to Owen's trusty Editorial Board, which now numbers six. Carlos Jaramillo has done a great job with the Newsletter since taking over from Marloes Kloosterboer-van Hoeve last year. I can assure you all that Carlos ensures that all contributors adhere to his strict copy deadlines. The four Directors-at-Large have also worked hard. Specifically, Daniel Michoux (with help from Tom Demchuk) organized the 2003 Board of Directors election, the first ever which has been electronic.

With regard to the 2003 AASP election, I have pleasure in reporting that Martin Head of Cambridge University has been elected as President-elect. Martin,

of course, is a past AASP Director-at-Large (1992 to 1994) and was Newsletter Editor between 1994 and 1996. He started in palynology at Aberdeen some years ago, then moved west to spend the greater part of his career working in Toronto with Geoff Norris. He moved to Cambridge recently to work on the Neogene and Quaternary of the Baltic region. I have no doubt that he will do an excellent job as President; Martin truly has his finger on the pulse and will be very good for AASP. Tom Demchuk and Owen Davis were both elected unopposed to the posts of Secretary-Treasurer and Managing Editor respectively. Enrique Martinez-Hernandez and Francine McCarthy were also elected to the Board as Directors-at-Large. Three AASP members were, unfortunately, not elected. I deeply regret the cruel nature of the adversarial electoral system in the context of such a small, tightly-knit global community that is AASP. We must, however, give the membership a democratic choice in the makeup of the Board. I would ask the three persons concerned to stand for election again. Thanks to Daniel Michoux and Tom Demchuk for conducting this election and also to Tom Davies for kindly organizing the Search Committee.

Garry Jones at Unocal, Houston has recently announced that an international conference will be held at Rice University in Houston during early March 2005 on the topic of *Geologic Problem-Solving with Microfossils*. AASP is a co-sponsor of this conference and the scope of the meeting will be very similar to that of the September 2002 AASP/TMS/NAMS meeting in London. The First Circular and a call for papers will be made in January 2004. Contact Garry on garry.jones@unocal.com for more details and to be placed on the mailing list.

With regard to the recent submission to the Institute for Scientific Information (ISI) to have *Palynology* included in the Science Citation Index, I can report that the ISI are still considering the case and wish to monitor the journal in the near future. Our submission is a very good one and with the recent initiative taken by Owen Davis to have *Palynology* published in time for each Annual Meeting, I am confident of inclusion sooner rather than later.

I would like to extend sincere congratulations to AASP member Margaret E. Collinson of Royal Holloway, University of London upon her recent (April 2003) promotion to the position of Professor of Plant Palaeobiology. Well done Margaret.

Finally, there is still time to register for the St Catharines meeting which is, at the time of writing, only a few weeks away. The full programme is now on the website and it looks like being a very good meeting. Registration and payment can now be done electronically. I hope to see as many of you as possible at St Catharines.

J. B. Riding
September 2003

MESSAGE FROM THE INCOMING PRESIDENT-ELECT

I am delighted to learn that I've been elected to serve as President of AASP. I'd like to thank the Nominating Committee, chaired by Tom Davies, and Dan Michoux as ballot official for their efforts making the election run smoothly, and of course all those who voted for me. My term of office begins as President-Elect, continues as President, and ends as Past President, over a three-year period. The first year is an apprenticeship, in which my main job is to show up at meetings and take the minutes. Jim Riding as the incoming President, and Dave Pocknall as the outgoing President, will be hard acts to follow. A few years have passed since I was last closely involved with AASP, finishing my term as Webmaster in 2000. It's good to be back, and look forward to working with the AASP directors and other volunteers in the future. St Catharines promises to be a great conference and I hope to see you all there! Thanks again for your support.

Martin J. Head
September 4th, 2003

DAVID JARZEN ELECTED A NATIONAL FELLOW OF THE EXPLORERS CLUB

David MacArthur Jarzen was elected a National Fellow of the Explorers Club on 10 May 2003. Founded in 1904 by a group of the world's leading explorers, The Explorers Club is a multidisciplinary professional society dedicated to the advancement of field research, scientific exploration, and the ideal that it is vital to preserve the instinct to explore. The encouragement of scientific exploration of land, sea, air, and space, with particular emphasis on the physical and biological sciences, is its mission. As a world center for exploration, The Explorers Club has served as a meeting point and unifying force for explorers and scientists worldwide. Members past and present include Frank M. Chapman, Casper Whitney, Frederick Cook, Robert Ballard, Donald Johanson, George Schaller, Jane Goodall, Buzz Aldrin, Michael Collins, Sir Ernest Shackleton, and Sir Edmund Hillary. Its international headquarters is located in New York City.

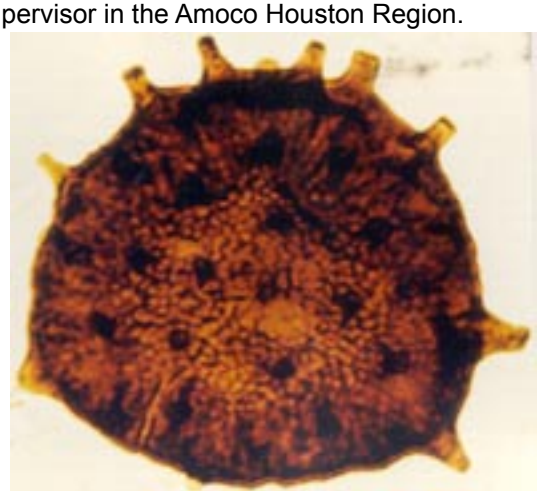
RAPHAEL 'RAY' GUILLORY

By Gordon D. Wood, Don G. Benson, Jr., and Merrell A. Miller

Raphael "Ray" Guillory, a champion of applied palynology and paleontology at Amoco Production Company, died August 16th in Houston, Texas. Ray was born in Mamou, Louisiana on October 12, 1931. Those who knew him will remember his ever pleasant demeanor, palynological prowess, reputation as a raconteur of Cajun or 'Coonass' jokes (he used these as endearing terms), long time member of AASP, and as a practicing 'Diptherian."

Ray graduated from Louisiana State University (Baton Rouge) with a degree in Geology. At LSU he developed a major interest in paleontology. Ray pursued graduate work at Tulane University, until he accepted a position with Stanolind Oil Company (subsequently Pan American and eventually the Amoco Production Company). He served in the U.S. Army during the Berlin Airlift. Ray was stationed in Wiesbaden, where he met his future wife Jean Campbell. Jean and Ray were married for 48 years and have two children, Ronald Ray and Becky.

Ray was employed by Amoco for 31 years, first as a micropaleontologist in Amoco's New Orleans office. When industrial palynology was in its infancy he leaped at a chance for retraining as a palynologist at Amoco's Tulsa Research Center. He spent the remainder of his technical career working primarily on the Mesozoic Gulf Coast palynology. Ray was instrumental in developing the zonation for the Lower Cretaceous and Jurassic that was used at Amoco. He was infamous for recognizing an important palynological marker informally known in the Amoco system as Baculatisporites-03, or Bac-03. A photomicrograph of this 'bug' was memorialized on Ray's 1989 retirement plaque from Amoco Paleo. At the end of his career he had achieved the position of Regional Paleontological Supervisor in the Amoco Houston Region.



Besides championing the biostratigraphic and paleoecologic application of palynology and micropl-aeontology during his lengthy career, everyone under Ray's supervision recognized his admirable managerial skills. He protected his 'troops,' allowed them to do the work needed, access the technical training required to enhance their skills, and did so with an affable managerial demeanor. Jean and Ray considered Amoco paleontologists an extended family, and would frequently host parties at their house.

Ray was widely known for his sense of humor. For those lucky enough to be present at an AASP conference attended by Ray, a highlight of the meeting would be an evening of story telling and jokes in someone's room (the venue usually depended on the room with the best stocked temporary bar). The joke-a-palooza invariably included Ray Christopher and Graham Williams. This threesome would entertain attendees until the early morning hours with a continuous barrage of jokes. Ray Guillory would regale the audience with his 'stories' of Boudreau and Trosclair; always spoken with an exquisitely droll Cajun lisp. For those who worked with or for Ray, he retained the same sense of humor in the workplace. He always had everyone at ease, and often would decide to have meetings offsite, at the local mudbugs (=crawfish) and beer establishment. When out on business with a group he would invariably ask the waitress for the bill, and, after close scrutiny he would announce it was not large enough and order a few additional rounds of drinks. In the mornings at work he would jump-start everyone around the coffee bar with quips like: 'I'm gonna stop eating oysters!' 'Why Ray, did you get sick?' 'No— because I had a dozen last night and only eleven worked!'

All those fortunate enough to have shared his company at work or AASP meetings will sorely miss Ray's sense of humor, and congenial smile.

2003 CRANWELL AWARDS
by Fred Rich, AASP Awards Committee

The AASP Awards committee received 16 applications for student scholarships this year. Applicants attend schools in Colombia, England, Ireland, Australia, Canada, and the United States; among those who are enrolled in graduate schools, their undergraduate educations represent an even wider range of countries around the world. Topics of investigation this year were unusually broad, including such fields as forensic science and phytogeography, as well as the more conventional pursuit of biostratigraphy. The evaluations were time consuming, but were carefully undertaken by the Awards Committee, whose members include Barbara Whitney, Leonard Eames, and Fred Rich, with Owen Davis participating as the administrator of the Cranwell Award.

The committee is very pleased with the response it got to the call for proposals, and is pleased to announce the following award recipients:

Stijn De Schepper
"Pliocene Dinoflagellates from the North Atlantic and Southern North Sea Basin: Biostratigraphy, Palaeoecology and Sequence Stratigraphy"

I obtained the Diploma of the First and Second Cycle (1998, 2000) in Geology from Ghent University, Belgium, and the Interuniversity Master's Degree in Plant Micropalaeontology and Palynology (2001) from the University of Liège, Belgium. In 1999 and 2000, I also attended two summer field schools on neotectonics in the Altai Mountains of Central Siberia and near the lake Yssik-Kul in Kyrgyzstan.

In 1999, I was introduced to palynology by Jacques Verniers at Ghent University, where my dissertation considered chitinozoan biostratigraphy of the Silurian in the Brabant Massif. During my study at the University of Liège, I moved significantly up the geological time scale to study Pliocene dinoflagellates, under supervision of Stephen Louwye. It was the first time that dinoflagellates had been systematically studied from the Belgian Pliocene, and the study revealed the usefulness of dinoflagellates for biostratigraphy and palaeoecology in the shallow marine deposits from the southern North Sea.

My Ph.D. research at the University of Cambridge, supervised by Martin Head, is a continuation of this latter work and aims to establish a calibrated dinoflagellate and acritarch biostratigraphy for the Pliocene of the eastern North Atlantic based on a study of DSDP Hole 610A. Following a taxonomic study, dinoflagellates will also be studied to provide insights into Pliocene climatic variations in the eastern North Atlantic and southern North Sea. The southern North Sea is very valuable in understanding land/sea relations in response to climate change, where dinoflagellate and pollen analysis together will be a powerful tool for reconstructing both marine and terrestrial palaeoecology. Finally, sequence stratigraphic methods will be applied in order to reconstruct the depositional history of the southern North Sea.

Elizabeth Watson
Paleoecology of South San Francisco Bay Tidal Marshes

After obtaining a B.A. in Integrative Biology from U.C. Berkeley, I worked at a NOAA research lab where I studied seasonal morphological change in coastal estuaries and the use of such estuaries by anadramous fish. I became attracted to the interdisciplinary nature of the geography department at Berkeley, where I earned an M.A. in 2002 studying tidal marsh formation and development with my current advisor, Professor Roger Byrne.

My Ph.D. research will address environmental change in tidal marshes of south San Francisco Bay. Previous radiocarbon dated cores obtained from this region have revealed the presence of tidal marsh deposits of up to 6,000 years in age. Through the analysis of sediment core material, both newly obtained from South Bay marshes, and archived open bay cores taken on U.S.G.S. cruises, I plan to reconstruct salinity and precipitation in south San Francisco Bay watersheds. Using proxies such as pollen, foraminifera, and seed assemblages, in addition to the stratigraphic control provided by radiocarbon dating, I will study how climate mediates the formation and development of tidal marshes through such variables as sediment supply and global eustatic sea level rise.

In the future, I hope to continue field research in ecosystems of the Pacific Coast working either in academia or for public agencies. My six year old daughter, Drisanna, is a frequent fieldwork companion, and reminds me of the importance of considering environmental processes on timescales longer than my own.

Tambra L. Eifert
"Palynology and Micropaleontology of the Cretaceous and Paleogene Deposits in the Northern Mississippi Embayment of Southeast Missouri: Biostratigraphy, Paleoclimatology, and Sequence Stratigraphy"

I am presently a graduate student and teaching assistant working on my Ph.D. in the Department of Geology and Geophysics at The University of Missouri-Rolla, Rolla, Missouri. Palynolgist, Dr. Francisca E. Oboh-Ikuenobe, is serving as my graduate advisor for my Ph.D. I am responsible for teaching the following labs: Systematics Paleontology, Evolution of the Earth, and Physical Geology. In 1999, I earned my M.S. degree in Geology at Baylor University, Waco Texas. I received the Best Student Paper Award for my research from the Paleontological Society of America at the annual South-Central GSA meeting held in Lubbock, Texas. In 1996, I earned my B.S. degree in Geosciences with Academic Distinction at Southeast Missouri State University. My B.S. research was aired on the 'Discovery Channel' at Mammoth Cave National Park in Kentucky. My present research involves studying the palynology and biostratigraphy of the Late Cretaceous-Paleogene sedimentary rocks of the northern Mississippi Embayment located within the southeastern lowlands of Missouri. Little is known of the geologic history of this region; therefore, to better understand the history of the embayment, I am proposing to establish a graphic correlation of palynomorphs which will be correlated with worldwide chronostratigraphy. In order to do so, a detailed taxonomic survey of spores, pollen, dinoflagellate cysts, acritarchs, foraminifera, and organic debris are presently being studied. The data generated will be used to interpret biostratigraphy, paleoclimatology, and palynofacies of the rock successions within the embayment. Also, special attention is given to the K-T boundary within the study area.

AASP Election Results

On behalf of the Chair of the AASP Ballot Committee, Daniel Michoux (Total, France), I would like to present the winners of the recent AASP election.

President Elect: Martin Head
Directors-at-Large: Francine McCarthy and Enrique Martinez-Hernandez
Secretary-Treasurer: Thomas Demchuk (surprise!!)
Managing Editor: Owen Davis (another surprise!!)

This year the ballots were distributed electronically to all those members paid through 2003. If you did not receive a ballot, and believe you should have, please contact the Secretary-Treasurer to make sure your e-mail address and/or membership is up-to date.

Dr. Thomas D. Demchuk
AASP Secretary-Treasurer (for another year!)

AASP ANNUAL MEETING AT ST. CATHARINES COMING SOON

By Francine McCarthy

Over 100 delegates are expected to attend this year's annual meeting, to be held in St. Catharines, Ontario, Canada from October 5th to 8th. The organizers, Francine McCarthy (Dept. of Earth Sciences, Brock University) and Kevin Gostlin (Dept. of Geology, University of Toronto), have received 77 abstracts from workers from 15 countries. This year's meeting has benefited from the participation of CAP and NAMS, with strong participation from their executives (CAP President Alwynne Beaudoin, and NAMS President Mimi Katz and President-Elect Pete McLaughlin are all chairing sessions at the meeting). As a result, in addition to a varied and interesting palynological program, there are oral and poster presentations on diatoms, foraminifera, thecamoebians. The participation of many CAP and NAMS members has also resulted in a focus on Quaternary paleoecology and geoarcheology and on evolutionary biology. There is obvious potential for cross-fertilization (pun intended!) between these organizations, and this venue will hopefully lead to new and fruitful collaborations. We have kept the registration fees moderate, particularly for student members, and the exchange rate remains quite favorable for visitors to Canada- and of course, this meeting provides delegates with an opportunity to see one of the world's great natural wonders (Niagara Falls- unfortunately not unspoiled...) as well as one of UNESCO's World Biosphere Reserves (Niagara Escarpment).

In addition to a very full technical program, spanning three full days with concurrent sessions on October 7th, events include a public lecture on palynological and bryological investigations of the Tyrolean Iceman by James Dickson following the Opening Mixer at Brock University, field trips examining the geology of Wine Country, of Niagara Falls and Crawford Lake, and an early morning birding trip to a mature Carolinian forest stand, as well as evening dinner outings to Niagara Fall's Skylon Tower and to Hillebrand Estates Winery Restaurant. Together with the AASP Business Luncheon and board meetings, as well as the CAP Annual General Meeting, this will result in four very full days!

Please see the conference website (www.geology.utoronto.ca/aasp2003) for additional information, including a detailed program and information on registration, accommodations, and transportation. If the site doesn't address all of your questions, feel free to contact Francine (francine@craton.geol.brocku.ca) or Kevin (gostlin@geology.u

AASP NEWSLETTER GOING TOTALLY ELECTRONIC

From the desk of the Secretary-Treasurer

At the recent mid-year meeting in San Ramon, the Board of Directors decided that in the year 2004, the newsletter will become totally electronic. It is hoped that ALL individual members of the Association will receive the newsletter via e-mail attachment, or download from the AASP website.

THIS IS YOUR INITIAL NOTIFICATION THAT YEAR 2004, VOLUME 37, ISSUE ONE OF THE AASP NEWSLETTER WILL BE DISSEMINATED COMPLETELY ELECTRONICALLY. IT IS IMPERATIVE THAT YOUR UP-TO-DATE E-MAIL ADDRESS RESIDE WITH THE SECRETARY-TREASURER.

Only in certain circumstances, will we (AASP) reproduce a hard copy of the AASP Newsletter for mailing to individual members. A clear case must be made to continue receiving the newsletter via US and International Post.

If you have any comments and/or concerns over this decision, please feel free to contact a member of the Board of Directors. In the meantime, members are strongly urged to make sure and send their current e-mail address to tdemchuk@swbell.net to ensure receiving future notifications. Subsequent messages will appear in the last two newsletters notifying members of this new policy.

Thomas Demchuk
AASP Secretary-Treasurer

NEW AASP SECURE SERVER

Through the hard work of Owen Davis and Eneida Guerra de Lima at the University of Arizona, the AASP secure server is now up-and-running. We have already been accepting membership renewals, AASP Foundation publication purchases, and registration payments for the upcoming Niagara meeting. All these utilities are accessible through the AASP website (www.palynology.org) so go on-line and renew your membership or conduct another secure transaction. Your payment information is totally secure, and you will receive an e-mail notification of the transaction for your records. Future membership renewals, publication renewals and meeting registrations will be conducted through the secure website, so go check it out and see that AASP has moved into the e-commerce realm.

NEWS FROM SCANDINAVIA
By Pi Suhr Willumsen (piwillumsen@hotmail.com)

Collegium Palynologicium Scandinavicium (CPS) had its annual meeting at Lund GeoBiosphere Centre, Lund University, Sweden 15th -17th of August. Sofie Lindström and Vivi Vajda, Lund University, arranged the meeting. A total of ca. 20 palynologist from Danmark, Sweden and Norway participated in the two days of palynological talks. The presentations ranged from studies of recent dinoflagellate cyst in shelfal environments, reconstructions of Jurasic paleoenvironments to the evolution of angiosperms in the Cretaceous. The CPS meeting showed that palynologist from both academia and the industry works with a wide range of geological problems. The meeting was followed by a one day fieldtrip to southern Sweden, Skåne. A similar meeting is scheduled for May-June next year and we look forward to see a few more of the Scandinavian palynologists.

NEWS FROM NEW ZEALAND
By Pi Suhr Willumsen (piwillumsen@hotmail.com)

The 25 of June, at Victoria University of Wellington, New Zealand, I defended my doctoral thesis dealing with marine palynology. The title of thesis is: *Marine palynology of the Cretaceous-Tertiary boundary in New Zealand*. In my thesis I examined late Maastrichtian to early Paleocene strata in six New Zealand sections. As a part of this study a high-resolution dinoflagellate cyst zonation has been established and correlated directly to radiolarian zonation of Hollis (1993, 1997) and foraminiferal zones of Berggren *et al.* (1995). Furthermore, a reconstruction of changes in the paleoenvironment across this boundary was developed based on palynofacies and quantative dinoflagellate cysts data. These data are currently in the process of being published. Any one interested can contact me via my e-mail.

NEWS FROM INDIA
By Naresh C. Mehrotra (nareshmehrotra@indiatimes.com)

Recent Researches from KDMIPE, ONGC, Dehra Dun
Several research papers by K.D. Malaviya Institute of Petroleum Exploration, Oil and Natural Gas Corporation palynologists were presented in the First, Association of Petroleum Geologists Conference & Exhibition held at Mussoorie, India in Sept. 2002. Some of the information having strong bearing in hydrocarbon exploration in the different basins is briefly given here. The matter has been taken from the proceedings of the conference, vol. 1. Authors name and email addresses are indicated.

Depositional Model for Mio-Pliocene delta of Tripura - an integrated approach
The depositional environments and transgressive/ regressive cycles in the Rokhia and Agartala Dome areas of western Tripura are interpreted on the basis of integrated sedimentological, palynological and electrolog characters. Six sequence boundaries are identified within Bokabil and Bhuban formations in western Tripura, India. These sequences are correlated among the wells drilled in Rokhia, Agartala Dome and Pathalia structures.

Various cycles of transgression/regression with the probable paleobathymetry and relative sea level changes are determined. The depositional model suggests that the facies like delta mouth bars, distal delta bars, delta fringe sands, and distal channels in the prodelta are the ideal places for the reservoirs in Agartala Dome and Rokhia structure. The identification of these environments has proved important in understanding the possible geometry of reservoirs in the deltaic setup within the sequence stratigraphic framework.
(S.Mahanti, S.N.Swamy, P.N.Kapoor and A.K.Mathur, pushkarkapoor@ongc.net).

Sequence Biostratigraphy of Cenozoic Sediments in East Godavari Subbasin, Krishna-Godavari Basin, India.
High-resolution sequence biochronostratigraphy of East Godavari Subbasin, Krishna-Godavari Basin is presented. These studies have been carried out to support depositional and basin modeling for evaluating hydrocarbon prospects in Cenozoic sediments of East Godavari Subbasin.

The studies are based on more than 800 core and cutting samples from nine representative wells belonging to different structures and blocks along the dip (NW-SE) and strike (SW-NE), to have utmost representation of dinoflagellate cyst distribution in the studied area. On the basis of dinoflagellate cyst species diversity and log correlation fourteen III order depositional sequences have been identified. These depositional sequences are further subdivided into transgressive systems tract (TST) and highstand systems tract (HST), separated by maximum flooding surfaces (mfs). The maximum flooding surfaces are recognized by significant increase in dinoflagellate cyst abundance and diversity. These sequences have been dated Danian to Plio-Pleistocene (66.5-1.0 Ma). These fourteen III order depositional sequences represent fourteen T/R cycles. These T/R cycles are

correlated with global sea level changes (Haq *et al*., 1987).

For deciphering depositional environment distribution of systems tract, maximum flooding surfaces, absolute pollen frequency, lithological variations, and electrologs are taken into account. Interpretation of depositional environment suggests that the marginal marine to outer neritic conditions prevailed during the deposition of these sequences in the area.

Dinoflagellate cyst sequence biochronostratigraphy and correlation of depositional sequences in space and time have helped in identifying various hiatuses of varying magnitude. First hiatus identified at the top of basement above Razole Volcanics spans 66.5-62 Ma is approximately of 4 Ma duration, dated Danian and is local in nature. Second hiatus is marked at the top of Sequence VI is of varying duration i.e. from 13 Ma in Well-G to 5 Ma in Well-F; it is dated Middle Eocene to Late Oligocene. Third hiatus present at the top of Sequence XIII represents Late Miocene and Early Pliocene; spans maximum in Well-F i.e. 10.2- 4 Ma and minimum in Well-A i.e. 10.2 - 6.3 Ma. Second and third hiatuses are regional in nature.
(Kamla Singh, H.S.Aswal and N.C.Mehrotra Kamla2001@indiatimes.com)

Mesozoic Dinoflagellate Cyst Sequence Biostratigraphy of Kutch Basin, India
Dinoflagellate cyst biochronostratigraphy of Mesozoic sediments of Kutch Basin is presented. Fifty-four dinoflagellate cyst biochronohorizons are recognized form Mesozoic sediments dated Hettangian (Early Jurassic) to Maastrichtian (Late Cretaceous). Recognition of these biochronohorizons helped in institution of fifty-four dinoflagellate cyst biozones based on Interval Zone concept (Hedberg, 1976; Salvador, 1994). Descriptions of these zones are supplemented by illustrations. The data have been synthesized from eight representative wells from offshore (Seven Wells) and Onland (One well). Interpretation of III order depositional sequences, hiatuses, depositional environment, relative sea level changes and organic matter studies are discussed.

Twenty-three III order depositional sequences have been identified based on dinoflagellate cyst species diversity. Correlation of the depositional sequences has helped in identification of four hiatuses. First hiatus identified at the top of basement is approximately of 47 Ma duration and second hiatus at the top of sequence XII is of 4 to 10 Ma duration; both are local in nature. The third hiatus above the sequence XVIII is regional in nature and varies in duration from 7 to 14 Ma. The fourth hiatus representing sequence XXI-XXIII is approximately of 21 Ma duration and local in nature.

Interpretations on depositional environment and relative sea level changes on the basis of dinoflagellate cyst species diversity, absolute pollen frequency, organic matter study and temporal lithological variation in the Mesozoic sediments of Kutch Basin suggest that these sequences were deposited under marginal marine to outer neritic environment. Evaluation of hydrocarbon source potential is based on integration of data with the depositional environment, geochemical data and lithologies along with organic matter studies. The OM facies study points out that i) the sediments with good source-potential facies, of about 850mt. thick are dated as Hauterivian to Late Bathonian (122-161 Ma), correspond to Sequence IX - XIV in Well-B, and are likely to occur below the drilled section of Well-C, E and D; ii) the gas bearing sands in the Well-F are placed immediately above the section identified as moderate source potential facies, represent the thickness of 390m, are dated as Turonian to Early Kimmeridgian (91-145Ma) and correspond to Sequence XII - XVII.
(H.S. Aswal, S.N.Swamy, Kamla Singh and L.Phor ìaswalharish@indiatimes.com)

JOB OPENINGS
See up to date openings at www.palynology.org/news.html

PhD Studentship in Biostratigraphy
A 3 year PhD studentship in BIOSTRATIGRAPHY is now available within the Program for Petroleum Geology at the Geosciences Department, University of Oslo, under the supervision of Barrie Dale (University of Oslo), with co-supervision by Iain Prince (Statoil ASA). The project will be funded by the CEFEX (Cost Effective Exploration) Programme, Statoil ASA. The successful candidate will work closely with relevant groups in Statoil during the course of the project, including periods of time spent at the Statoil head office in Stavanger.

The project, “Integrated palaeoenvironmental interpretation of the Oligocene-Miocene of offshore Angola” will focus on the determination of palaeoenvironments from a number of wells in offshore transects from the Angolan shelf to deepwater, as input into the sequence stratigraphic interpretation for this area. These transects will include exploration wells and relevant Ocean Drilling Project (ODP) boreholes. The primary fossil group utilised will be dinoflagellate cysts, but it is intended to integrate these data with

other fossil groups and proprietary geological/geophysical information. Part of the project will involve data analysis and testing of the established biostratigraphic interpretations for the supplied wells. Based on the revised stratigraphic framework, the data will be statistically analysed, and palaeoenvironmental models constructed.

Experience in Neogene palynology (especially dinoflagellate cysts) together with a strong statistical background would be prefered. However, applicants with experience in other microfossil groups will also be considered.

Applicants should have an MSc, or equivalent qualification.

The closing date for applications is **October 6** and the successful applicant is expected to start as soon as possible in the Autumn 2003 term. The University of Oslo is an equal opportunities employer, and female applicants are particularly encouraged to apply. For further information contact Barrie Dale barrie.dale@geo.uio.no

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NEW MEMBERS AND ADDRESS UPDATES

Address Updates
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A GEOLOGICAL FICTION BOOK REVIEW
End of an Era, By Robert J. Sawyer, 1994, Ace Books, New York. ISBN 0-441-00114-9. 222 pages. $6.50

Time travel must be a palaeontologist's ultimate dream. Just imagine if you could go back and see what really happened at the K-T boundary. For Canadian Dr Brandon Thackeray, aka Brandy, museum curator and palaeontologist, it looks as if that dream might be about to come true. It's 2013 AD and with his friend and colleague, geologist Dr Miles Jordan (nicknamed Klicks), he is setting off in Ching-Mei Huang's experimental time machine, hoping to arrive around the end of the Cretaceous, give or take a few millennia. Their time ship is named the *Charles Hazelius Sternberg*, inevitably shortened to the Sternberger, because it looks a bit like a hamburger in profile. With the machine set to land in Alberta's Red Deer River valley, upstream from today's Dinosaur Provincial Park, they hope to be ideally placed to observe Mesozoic flora and fauna. As the transfer ends, they peer through the windows of the craft, wondering if they have in fact arrived at the right time and place. Then, across the mudflats fringed by bald cypresses, there emerges a large dark distinctive shape, *T. rex* in full splendour. At least they know the machine works! Now perhaps they can find some geological evidence to help solve conclusively one of the great mysteries of earth science, the disappearance of the dinosaurs.

For Brandy, the appeal of this trip, despite its dangers, is the chance to find out if dinosaur extinction really was caused by an asteroid impact. Brandy doesn't think so, but Klicks does. This generates a degree of tension between them, since both are looking for evidence to support their own pet hypotheses. Brandy thinks a less otherworldly explanation is possible, noting that the iridium anomaly could instead be related to the massive volcanic activity at the end of the Cretaceous that formed the Deccan Traps in India. So over the next few days, they explore the area around their craft, collecting samples, doing geology, and encountering the terrain's inhabitants. The fauna includes most of the usual suspects. Various pterosaurs swoop overhead, while ceratopsians and hadrosaurs munch their way through forests and wetlands. Platoons of insects crawl, click, and fly among the plants. As they explore farther afield, the two gleefully recognize the living equivalents of creatures they know only as fossils in Museum collections - *Chasmosaurus*, *Pachycephalosaurus*, *Edmontonsaurus*, *Parasaurolophus*, and *Quetzalcoatlus*. Being a biologist, Brandy is fascinated by their behaviour. He can watch how these creatures interact with each other and their landscape, observations that can confirm inferences from the fossil record. But the scientists' view on the past changes dramatically when they meet some rather more vicious dinos, especially the Troödon, highly intelligent beasts, who have a distinct interest in Brandy and Klicks as specimens too. In fact, the world, notwithstanding its apparent reflection of the palaeontological record, seems ever so slightly off kilter. Uneasily, Brandy becomes more and more convinced that something is not quite right.

The solution to this mystery, and the *real* explanation for dinosaur extinction, makes for a quirky and amusing tale. One of the best aspects of this novel is its firm Canadian setting. Certainly, the Alberta badlands provide a treasure-trove of dinosaur fossils and are the heartland of dinosaur research. Sawyer's account

of what animals and plants the earth scientists see there is plausible. The researchers also have their feet in Canadian soil. Sawyer makes both characters University of Toronto-educated museum curators, Brandy based at the Royal Ontario Museum in Toronto and Klicks working at the Royal Tyrrell Museum in Drumheller. There are many wry jokes about the difficulties of doing research on a shoestring budget, scrounging equipment from other labs, and making-do with less than ideal field gear. In this entertaining tale, scientists do good work *despite* their budgets not because of them!

Alwynne B. Beaudoin
Edmonton, Alberta, abeaudoi@gpu.srv.ualberta.ca.

EARTH SCIENCE WORLD IMAGEBANK
By American Geological Institute

Do you want to include a scenic mountain photo in a presentation? Or show a picture of an erupting volcano to your students? The American Geological Institute (AGI) is proud to announce the launch of the Earth Science World ImageBank, a free service, (www.earthscienceworld.org/imagebank) with high-quality, fully-indexed images. Launched with approximately 1,000 fully-indexed images, the Earth Science World ImageBank continues to grow with dozens of new images every day.

The Earth Science World ImageBank is one of the largest collections of Earth science images available to the public. This searchable database is designed to provide the public, educators, and the geoscience community access to quality images in a wide range of Earth science topics at no cost for non-commercial use.

The American Geological Institute is encouraging use of this resource for professional and educational non-commercial use. Additionally, geoscientists or photographers who would like to participate in the ImageBank should logon to find out more.

GRAD STUDENT GRANT PROGRAM
IOP BARILOCHE CONFERENCE
The Student Grant-in-aid Program has been developed for the VII International Organization of Paleobotany Conference. The purpose of the program is to help paleobotany graduate students from all over the world to attend the Conference by partially subsidizing the expenses to be incurred for this purpose. Depending on final funding, a minimum of ten up to twenty graduate students will be granted funds through this program. For each recipient, the VII IOPC Organizing Committee will:
- waive the registration fee for the Congress
- provide an amount in cash in the sum of U$D 500,-
- provide a 30% discount in the participation on any of the field trips
- a 20% discount in the accommodation package.

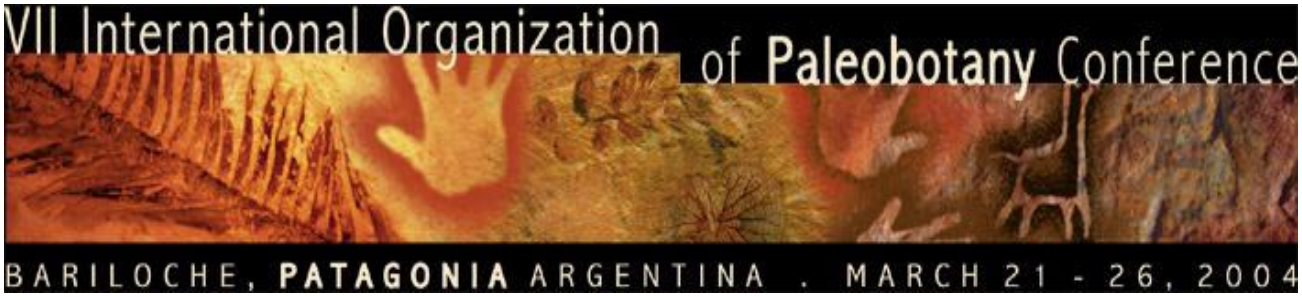
Eligibility
The objective of the Student Grant Program is to enable paleobotany graduate students from as many regions of the world as possible to attend the VII IOPC.
All applicants will be judged by the following criteria:
- quality of his/her scientific presentation to the Conference
-quality of his/her scientific qualifications (published papers and abstracts, participation in previous international meetings, grants received, etc.)

more information at www.iopc2004.org/student.htm

ANNOUNCEMENT IPC SESSION
Dinoflagellate cysts and dinoflagellate biology
XI International Palynological Congress
(Granada, 4-9th July 04)

A special session “Dinoflagellate cysts and dinoflagellate biology” is to be held at the XI International Palynological Congress (XI IPC), Granada, 4-9th July 2004. Dinoflagellate cysts have a long and diverse fossil record extending back to at least the Triassic and probably much earlier. Their practical utility in hydrocarbon exploration (especially sequence stratigraphy) is well established, and they are becoming increasingly used for environmental monitoring (e.g. harmful algal blooms) and Quaternary climate reconstructions. This special session will cover all aspects of the dinoflagellate cyst record including evolution, phylogeny, taxonomy, biostratigraphy, ecology, paleoecology, and commercial applications. Anyone interested in participating in this special session is invited to submit a provisional title of their presentation. This can be done by pre-registering online at the XI IPC website: http://www.11ipc.org (please note that there is no commitment in pre-registering; our special session has the prefix “g.1” on the online form) We look forward to seeing you in Granada!

Martin Head, Edwige Masure & Rob Fensome
Co-conveners of Special Session



Dear Colleague,
at this point we have received more than 100 pre-registrations from paleobotanists in 30 countries. We expect you being one of them. Additionally, students from many different countries are already applying for the student gran-in-aid program so expectations are more than great on this matter. So far, nine international symposia have been proposed covering the top subjects on Paleobotany in the 21st century.
Please, do not forget the dateline July 15th for pre-register. It is very important for organizational purposes.

And do not miss your chance of attending an unforgettable VII IOPC!

Visit us at www.iopc2004.org

IPC-11 AASP MEMBER TECHNICAL SESSIONS
(go to http://www.palynology.org/content/ipc11sesns.html)

Nine of the technical sessions scheduled for IPC 11 (July 4-9, 2003) are organized by AASP Members. The organizers are responsible for inviting speakers for these sessions. Participants are welcome to submit papers to these sessions by contacting the organizers, or through the online registration form. Abstract deadline: 15 January 2004.

E. Entomopalynology and Melissopalynology
Gretchen Jones g-jones@tamu.edu

F. Forensic Palynology
Vaughn Bryant vbryant@neo.tamu.edu
Dallas Mildenhall d.mildenhall@gns.cri.nz

G. Palaeopalynology and Evolution
Rosario Rivas Carballo crivas@aida.usal.es

G1. Dinoflagellate Cysts and Dinoflagellate Biology
Rob Fensome fensome@gsca.nrcan.gc.ca
Martin Head mh300@hermes.cam.ac.uk
Edwige Masure edmasure@ccr.jussieu.fr

G3. Upper Palaeozoic Palynology/CIMP Symposium
Charles Wellman C.Wellman@sheffield.ac.uk

G4. Mesozoic Palynology
Henrik Nohr Hansen hnh@geus.DK
Koldo N˙Òez Betelu gpbnubek@lg.ehu.es

G5. Tertiary Palynology
Joao Pais jjp@helios.si.fct.unl.pt

H5. Long Continental Records: The Development of “Ground Truth” For The Marine Oxygen Isotope Chronology
Owen Davis palynolo@geo.arizona.edu
Henry Hooghiemstra hooghiemstra@science.uva.nl

I1. Global Pollen Databases
Eric Grimm grimm@museum.state.il.us

AGENDA

2003

October 5-8 Joint AASP/CAP/NAMS meeting Niagara. A joint meeting of the American Asociation of Stratigraphic Palynologists, the Canadian Association of Palynologists, and the North American Micropaleontological Section of SEPM will be held in Canada's Niagara Peninsula October 5-8, 2003. The meeting will be held at the Four Points Sheraton Hotel, St. Catharines, Ontario, where a large block of moderately priced rooms has been reserved. More information in our meeting website www.geology.utoronto.ca/aasp2003

October 16-18 2003 Open Meeting of the Human Dimensions of Global Environmental Change Research Community. The 2003 Open Meeting of the Human Dimensions of Global Environmental Change Research Community will be held on October 16-18, 2003 in Montreal, Canada. The local host is the McGill School of the Environment, and the meeting itself will take place at the Wyndham Hotel. The overall theme of the Open Meeting is "Taking Stock and Moving Forward." The program will include a set of plenary speakers addressing key questions concerning past progress and future directions in human dimensions research. The Program Committee also invites submission of focused "stock-taking" panels to review progress in particular areas of human dimensions research such as land use/land cover change, integrated assessment, population, environmental security, industrial transformation, institutions, and environmental economics. Proposals for individual research papers are also welcome. These may be on any area within the broad Human Dimensions research agenda. Poster sessions will also be held. For further information on the Open Meeting, see: http://sedac.ciesin.columbia.edu/openmeeting.

November 2-5, Geological Society of America, Annual Meeting, Seattle, Washington, U.S.A. http://www.geosociety.org

2004

March, 21-26, 2004., **tth International Organization of Paleobotany Conference (IOP) in Bariloche, Argentina**.
Website http://www.ugr.es/local/bioveg, or contact palacio@pcgr.org.

April 14-19, 2004, **The 5th International Symposium on Eastern Mediterranean Geology** (5ISEMG) will take place in Thessaloniki, Greece.
Its topics cover the entire range of earth sciences, focussing on the broader area of Eastern Mediterranean and its surroundings. Extended abstracts (up to 4 pages) will be published for all accepted presentations (oral or poster).

The first circular has been released, and pre-registration has already begun. You can pre-register now by one of the following means: i) download and fill the preregistration form (www.geo.auth.gr/5thISEMG) and send it by email to 5thISEMG@geo.auth.gr or ii) send the filled pre-registration form by fax to +30.231.0998482. For more information contact: Web: http://www.geo.auth.gr/5thISEMG,

April, 18-25, 2004. American Association of Petroleum Geologist Annual Meeting, Dallas, Texas, USA. Website www.aapg.org.

July, 4-9, 2004., **11th International Palynological Congress (IPC) in Granada, Spain**.
Website www.iopc2004.org.

August 20-28, 2004, **the 32nd session of the International Geological Congress.** "From the Mediterranean Area Toward a Global Geological Renaissance" Geology, Natural Hazards and Cultural Heritage, in Florence, Italy.
http://www.32igc.org or contact Chiara Manetti, Dipartimento di Scienze della Terra, Via La Pira, 4 - 50121 Firenze - ITALY, Phone/Fax: +39-055-2382146, E-mail: casaitalia@geo.unifi.it

November 7-10, Geological Society of America, Annual Meeting, Denver, Colorado, U.S.A. http://www.geosociety.org