



Newsletter

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ANNOUNCEMENT

IAS Lecture Tour by Charlotte Schreiber

After the very successful Special Lecture Tours of Robin Bathurst (1992), John Crowell (1993/94), Emiliano Mutti (1996), Gerhard Einsele (1997), Harold Reading (1999), Robert Ginsburg (2001), Roger Walker (2003/04) and Maurice Tucker (2005/2006) we are now happy to announce that **Prof. B. Charlotte Schreiber**, who has received the Sorby Medal in Fukuoka, Japan, during the 17th International Sedimentological Congress has agreed to be our Special Lecturer for the years 2007/2008.

Professor Schreiber is well known for her research in evaporite and carbonate sedimentology and for her books on special sedimentological problems largely related to evaporitic sedimentation and their stratigraphy.

Charlotte Schreiber has studied evaporite sediments and rocks of a wide variety of facies and ages, from the Precambrian to the Recent, in many parts of the world. She offers lectures on a range of themes:

Understanding Evaporites

The deposition of evaporites within hypersaline conditions is extremely rapid (10-100x most other sediments) and they develop clearly recognizable features based on distinct facies markers with clear morphologies and sedimentary structures. The facies zones of unaltered evaporites include playas and other continental settings, sabkhas (supratidal zones), and subaqueous zones (both shallow and deep-water). Comparable zonal markers are clear in both sulphate and halite sediments (despite their chemical differences) however the specific identifying features differ greatly. Mechanical reworking is also common and clastic facies are readily recognized in sulphate and also (more rarely) in halite facies.

While most major evaporite deposits form from marine water, hydrothermal influx into many basins and chemical reworking in all basins are wide-spread phenomena. Visual recognition of the differences is not evident but a combination of trace element and isotopic study help establish a measure of certainty. Older evaporites suffer from overprinting by both diagenesis and deformation and the «metamorphism» of many evaporites apparently begins at extremely low temperatures (well below the 'oil window'), commonly preventing easy recognition of primary features, creating false bedding and structures.

Reworking of Evaporites: Case Histories from the Messinian of Italy

As with any other sediment, evaporite deposits may be reworked, both mechanically and chemically. The effects of reworking are easily seen on a small scale (locally) and result in cross-bedding, ripples and edgewise conglomerates. Deeper water deposits, commonly formed as cumulate precipitates from stratified waters, collect at a much slower rate and are usually protected from large-scale reworking. Downslope reworking of rapidly-deposited nearshore evaporites may identified as displaced blocks, mass flows, basal channel fillings and turbidites. These components are readily identifiable, having a characteristic appearance due to their recognizable physical attributes. Because evaporites are deposited quickly in shallow settings, any tectonic event, major storm, tsunami, or even a significant sealevel change may result in major submarine relocation. Such slide blocks and dismembered sedimentary sections may be very large and coherent, and can become embedded in the clayey arenites of the adjacent slopes resulting as a bewildering *mélange*, readily confused with later tectonic displacement.

During the Late Miocene of the Mediterranean, the Apennines of Italy underwent major displacement and extensive reworking. Similarly the evaporites within various basins in Sicily underwent sporadic submarine sliding and reworking. Even the incised canyons formed during the Messinian evaporative period, present on the various margins of the Mediterranean, contain reworked conglomerates and sands composed of upslope evaporites. These canyons debouched onto the floor of many basins producing massive clastic wedges and major basin filling. These observations show that it is necessary to model evaporites as with other sediments, particularly to recognize the rapidity of shallow water deposition and phases of major redistribution into deeper basins.

Evaporite Diagenesis: Why is it so difficult to interpret

What we now see within many evaporite sections, is not truly what was originally deposited and original internal morphologies have become unclear. Bedding seemingly remains well-defined, the sequences commonly are little disturbed, and interbeds of non-evaporites may be tranquil and marked by typical primary sedimentary depositional structures — but the evaporites themselves can seem massive and almost featureless. Hence they are treated as ciphers to be interpreted only by their associated sediments and not from anything in themselves.

There are basically three diagenetic pathways that evaporites follow to become such curious puzzles. The first is simple burial, geothermal heating, and recrystallization which will dehydrate the sediments, with considerable volume (50%+) and morphologic losses. The second route is solutional – a relatively small influx of water can dissolve and may calcitize and/or redeposit the evaporites on a localized basis so that primary sedimentary morphologies are lost and new unrelated morphologies are created. Solution residues, broken, altered and re-cemented may be found as disjointed breccias. Finally tectonics, and the prolonged results of modest strain at only 2-3 km burial, will cause evaporites to undergo total recrystallization and even major deformation on a bed-by-bed basis, producing a type of low temperature metamorphism, where little other alteration is evident in the associated non-evaporite section. In this latter case, entire sedimentary sections may be translated in position, riding on the deformed evaporites. The new morphologies, visible in these deformed evaporites, actually have little apparent evidence of their deformation except that there is similar deformational vergence throughout the section. Taken together with the nearly tranquil aspect of the associated sedimentary sequence, deformation is missed and both the evaporites and their the associated sections are misinterpreted.

These lectures can be amplified by round-table discussions and supplements with local field trips and discussion, in situ.

Sedimentology groups and institutes interested in receiving Prof. Schreiber **should apply as soon as possible, but not later than December 15th, 2006**, indicating the preferred time for the visit, and the preferred themes.

A travel plan will then be established. Priority will be given to institutions in countries that normally do not have the means to invite foreign lecturers, and to countries in Asia, South America and Europe not yet visited by previous Special Lecturers.

The International Association of Sedimentologists finances travel expenses to and from the visited country, but local expenses for food and lodging as well as for local field trips must be paid by the host institutions.

For applications, please write to:

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EIGHT IAS LECTURE TOUR

Report from Maurice E. Tucker

In the last few months I have given talks in nine countries through the IAS lecture tour programme. My lectures have been on carbonate sedimentology (naturally!) but I have also been carrying the flag for the IAS, explaining what the IAS offers to members and postgrads. My talks have mostly been on my hobby-horse topic of the moment: high-frequency cycles in carbonate strata. Apart from the well-known peritidal metre-scale cycles (parasequences if you prefer), that many people ascribe to orbital forcing but for which there are other explanations of course, many carbonate successions do contain a higher-frequency cyclicity still, on a millennial scale. This is commonly expressed in the beds themselves (within a parasequence), or in their thickness patterns (thickening or thinning-up), or trends in C and O isotopes / trace elements / clay contents. Tidal-flat, shelf / mid-outer ramp and slope carbonate facies commonly show these patterns. In the case of mid-shelf and ramp limestones, the individual beds themselves are effectively cycles. The frequency is clearly millennial, and so most likely the beds are reflecting subtle climate changes, which will have affected carbonate productivity and clastic input. In the Quaternary icehouse times these millennial-scale cycles are being increasingly recognised in higher latitude sediments (D-O cycles, Heinrich events) and in Bahamian slope carbonates (Roth & Reijmer, 2005, *Sedimentology*) – but they are also present in the older stratigraphic record of greenhouse times.

In September 2005 I gave talks in Greece, Patras, thanks to the invitation of Avraam Zelilidis and Athens, through Fotini Pomoni. A trip with Avraam and colleagues to see the Pleistocene fan deltas of the Corinth area and the section in the Corinth Canal was fascinating indeed: such spectacular outcrops. There will be trips to these localities as part of the 25th IAS Meeting in Patras in September 2007. In Athens my lecture was hosted by the Hellenic

Sedimentological Society – a dynamic group working on the whole range of facies that Greece has to offer, but also offshore as well. Of particular interest here was hearing about the aragonite layers deposited during glacial times when lakes existed in some of the Greek gulfs (work of Aristomenis Karageorgis *et al.*). In the southern suburbs of Athens I saw nice Miocene reefal carbonates.

Late October saw me visiting Ankara, thanks to Sami Derman (Turkish Petroleum Corp), and speaking at the Technical University (METU). We spent a day in the field to the south of Ankara in the Haymana Basin, seeing Upper Cretaceous carbonates with well-developed incised valleys and a spectacular section through a Palaeocene reef. We also briefly saw Eocene metre-scale nummulitic cyclic carbonates, showing a 1:5 stacking pattern interpreted in terms of orbital forcing and composite eustasy (Atilla Ciner *et al.* 1996, *Sed. Geol.*). Unfortunately and a real surprise to everyone – it then began to snow! I thought the sun was always shining in Turkey.

Avoiding an unusually hard winter in England, 2 weeks in January were spent visiting Venezuela at the invitation of Juan-Carlos Laya from the Universidad de Los Andes in Merida. Lectures were given to final-year undergrads, postgrads and staff. Two days were spent in the Andes seeing a succession of Permian red-bed clastics through to mid-ramp carbonates deep in the mountains which necessitated an exciting helicopter flight. Unfortunately a scheduled talk organised by Olga Rey at the University of Caracas had to be cancelled because of major disruption to travel brought about by the collapse of a motorway bridge between Maiquetia airport and Caracas city.

February saw a visit to the Institute of Palaeontology, Ljubljana, in Slovenia, through Adrijan Kosir. A field-trip to the spectacular Skocjan caves was attended by around 40 geologists from several institutes and the University, with a large group coming from Zagreb in Croatia. A recently exposed Cretaceous palaeokarst section with abundant dinosaur bones was seen in a motorway cutting.

In March it was eastern Europe, starting at the Institute of Geology, Budapest, at the invitation of Andrea Mindszenty and Janos Haas. And then on by train to Bratislava in the Slovak Republic, host Roman Aubrecht, and on to Prague in the Czech Republic for a talk at the Geological Survey arranged by David Ulicny. We had a very interesting fieldtrip to the suburbs of western Prague, led by Jindrich Hladil, to see well-developed lower Devonian (Barrandian) slope facies. The thin-bedded turbidites are well packaged, showing regular upward thinning and thickening patterns (millennial cycles?).

Visiting India in April was a real education: a few days at the University of Delhi c/o Dhiraj Banerjee, and then a visit to the Wadia Institute of Himalayan Geology at DehraDun at the invitation of Sumit Ghosh for a couple of talks. There are plenty of very interesting rocks nearby and we visited the Siwaliks in the foothills foreland basin – great thicknesses of fluvial conglomerates and sandstones. A day was spent in the Lesser Himalaya examining the late Precambrian Kroll Group in the Mussorie syncline. The Kroll has fine stromatolites, palaeokarst breccias and metre-scale cycles (see Jiang *et al.* 2003, *Sedimentology*); it rests on a cap carbonate upon the Blaini tillite.

These visits to the universities and institutes in the various countries have all been extremely enjoyable; to be able to chat about a great range of current

sedimentological research projects with staff and postgraduates has been very rewarding. I learnt a lot. Seeing a variety of rocks in the field too, with local experts, has been a great experience. Everybody has been very welcoming and many new friends and contacts have been made. I hope those attending my lectures have found something interesting, new and relevant. I am extremely grateful for the hospitality and collegiality I was shown everywhere; I thank the IAS for the opportunity to visit these places too.

Maurice E. Tucker
University of Durham, UK

International Year of Planet Earth

On 22 December 2005 the General Assembly of United Nations has proclaimed 2008 as the International Year of Planet Earth. Besides the formal declaration of the Year, the UN General Assembly designates the United Nations Educational, Scientific and Cultural Organization (UNESCO) as the lead agency to organize activities to be undertaken during the Year, in collaboration with the United Nations Educational Program, the International Union of Geological Sciences (IUGS) and other Earth science societies and groups around the world. These activities will be funded from voluntary contributions, i.e. industry and major foundations mobilized by a consortium of international organizations, led by IUGS. Moreover, the United Nations declaration encourages all Member States, the United Nations system and all other actors to take advantage of the Year to increase awareness of the importance of Earth sciences for the achievements of sustainable development and to promote action at the local, national, regional and international levels.

Aims of the International Year of Planet Earth

The International Year of Planet Earth is an ambitious programme designed to foster outreach and research activities with the single purpose of raising worldwide public and political awareness of the vast, but often under-used, potential of Earth sciences for improving the quality of life and safeguarding the planet. The aim is encapsulated in the Year's tagline '*Earth sciences for Society*'. Its desired outcomes are raising public awareness and enhancing research, in both less developed countries and developed nations, with all the attendant capacity building this will entail. The International Year of Planet Earth envisages a significantly expanded role for the earth sciences in building a healthier, safer and wealthier society.



Logo of the International Year of Planet Earth

Among a range of objectives, the International Year aims to:

- Reduce risks for society caused by natural and human-induced hazards through current knowledge and new research
- Reduce health problems for mankind by improving understanding of the medical aspects of Earth science
- Discover new natural resources and make them available in a sustainable manner
- Build safer structures and expand urban areas, utilizing natural subsurface conditions
- Determine the non-human factor in climatic change
- Improve knowledge concerning the occurrence of natural resources, e.g. groundwater, which are often sources of political tension between neighbouring countries
- Improve understanding of unique conditions on ocean floors relevant to the evolution of life

And, at a more general level, to:

- Stimulate interest in the Earth sciences within society at large
- Expand the number of students in the Earth sciences
- Increase budgets for Earth science related research
- Promote exposure and application of geosciences
- Promote sustainable extraction of Earth's resources

Programme of the International Year of Planet Earth

The project for the International Year of Planet Earth was jointly initiated in 2001 by IUGS and UNESCO, organizations that have enjoyed several decades of productive cooperation, for example through its joint International Geoscience Programme (IGCP). Twelve Founding Partners and 26 Associate Partners representing major international scientific organizations have supported the initiative (see Web Page of the Year: www.yearofplanetearth.org). Besides the Founding and Associate Partners the geoscience community has expressed its support for the initiative in the form of written declarations from national geoscience committees of at least 44 nations. Moreover, a Declaration in support of the International Year was unanimously adopted by representatives of geoscientific communities in 140 countries at the 32nd International Geological Congress in Florence, Italy, in August 2004.

Although the United Nations proclaimed 2008 the International Year of Planet Earth, activities related to the event will run through a triennium starting in 2007 and ending by 2009.

The Year has two major lines of activity: an Outreach and a Scientific programme. The Outreach Programme lies close to the heart of the International year because of its prime aim to generate interest and greater awareness among the general public, decision makers and politicians about the effective application, for the benefit of human society, of the widely available wealth of information in the hands of the Earth science community. Aims and contents of the Outreach Programme can be read in the brochure Outreach, bringing Earth science to everyone. The programme will invite any interested party or group to submit international project proposals addressing the above-mentioned aims. These could embrace, for example, event listing and badging, cooperation for increased visibility, recycling of educational material, 'citizen science' involving the public in research, competitions, special magazine supplements, books, support for TV documentary or other programme-making, art commissioning, etcetera.

The Science Programme comprises a number of selected themes that were selected for the International Year of Planet earth on the basis of their relevance to Society. The selected themes are:

- Groundwater: reservoir for a thirsty planet?
- Hazards: minimizing risks, maximizing awareness
- Earth and Health: building a safer environment
- Climate change: the 'stone tape'
- Resources: towards sustainable use
- Megacities: going deeper, building safer
- Deep Earth: from crust to core
- Ocean: abyss of time
- Soil: Earth's living skin
- Earth and Life: origins of diversity

Specific questions, identified within of each of these themes, have been designed to attract project proposals with the potential to provide answers to a range of societal problems facing politicians and decision-makers. Scientists are invited to submit Expressions of Interest and project proposals (see Web Page of the Year: www.yearofplanetearth.org for application forms) for work within these themes and, more specifically, for addressing the special topics therein. Selection criteria for seed money grants (only) include: geoscience based, truly international, holistic and multidisciplinary, human impact, potential for developing countries and for outreach. Implementation of the Science Programme will involve close cooperation with the International Geoscience Programme (IGCP).

The sedimentological community has an important chance to participate in the initiative of the International Year of Planet Earth and provide the potential and relevance of our discipline in solving problems of major interest to Society. Be aware that we are just facing 2007 for the starting of events!

José-Pedro Calvo
IAS General Secretary

REPORT ON THE CLIMATE AND BIOTA OF THE EARLY PALEOGENE 2006

International Meeting and Field Trips

Bilbao and Pyrenees (Spain), June 12-20, 2006

The Scientific sessions of the Meeting on Climate and Biota of the Early Paleogene 2006 (CBEP2006) were held at Bilbao from 12-15 June 2006. In addition, three field trips were carried out, a mid-conference half-day trip to a prospective Ypresian-Lutetian boundary stratotype near Bilbao, a full-day post-conference trip to the classic Zumaia section (16 June), and a 3-days post-conference trip to the southern Pyrenees (17-20 June). The general opinion among participants was that all these events were very successful.

The Meeting started with an official opening ceremony presided by the head of the Basque Government, the Chancellor of the Basque Country University and the Dean of the Faculty of Science and Technology of Bilbao. The scientific sessions of the Meeting were attended by 148 scientists from 26 countries of all continents. Such participation was larger than in any of the earlier Meetings on this topic celebrated in Albuquerque (USA), Zaragoza (Spain), Paris (France), Goteborg (Sweden), Powell (Wyoming, USA) and Luxor (Egypt), and attest to the increased interest of the scientific community for the early Paleogene Climate and Biota. The Scientific sessions included 64 oral presentations and 92 poster presentations, the abstracts of which can be downloaded from the Meeting homepage: www.ehu.es/cbep2006.

More than half of the oral presentations, and a good deal of the poster presentations, were focused on the so-called hyperthermals events, particularly on the most prominent of them, named the Paleocene/Eocene thermal maximum (PETM; also called the Initial Eocene thermal maximum, IETM). The PETM was a comparatively short event of extreme global warming at the

onset of the Eocene Epoch, ca. 55 million years ago, superimposed on the prevailing warm greenhouse climate of the early Paleogene. The event is characterized by a 2-6‰ negative carbon isotope excursion in terrestrial and marine records, indicative of a massive injection of ¹³C-depleted carbon. It is therefore regarded as a natural experiment that may serve as an analogue to predict the long-term effects of the present-day anthropogenic carbon input to the atmosphere on the global climate, and its consequences. For that reason, the Meeting attracted a good deal of attraction from the mass media.

The Meeting provided a forum to assess and discuss our current understanding of the PETM, including its possible causes and its duration, and to analyze the profound ecological impact of the event, recorded by important floral and faunal turnovers and/or migrations of many fossil groups. A talk demonstrated that the impact on the tropical flora was particularly severe, other provided strong evidence of extensive wildfires at the onset of the PETM, and another presented empirical evidence of the dramatic and rapid effects of increasing CO₂ concentrations on the hydrological cycle. Several presentations specifically addressed sedimentological aspects of the PETM, such as the possible increase in storm activity brought about by the rapid warming, the sea-level changes associated with the event, or its effect on the evolution of carbonate platforms. Several talks were based on papers recently published in *Nature* and *Science* and other important periodicals.

Many other aspects of the early Paleogene Climate and Biota were treated during the Meeting. Some presentations, for instance, discussed improved astronomical calibrations of the Paleocene time scale; others presented evidences of Paleocene and/or Eocene sea-level changes from several basins; some focussed on specific boundaries, particularly in the Danian/Selandian boundary, but also in the Cretaceous/Paleogene, Ypresian/Lutetian or Bartonian/Priabonian boundary. A sizable number of papers were based on deep-sea drilling boreholes and several others provided attendant with outcrop data from «remote» (from an European perspective!) and/or little explored areas, including sections from Argentina, Bulgaria, the Caucasus, Egypt, India, Iraq, New Zealand or western Siberia. The last oral session of the Meeting included six talks centered on the high latitude Paleogene record: three of them presented evidence for a late Eocene glaciation, and the other three were based on data from the deep-sea borehole recently completed in the Lomonosov ridge, the results of which appeared in *Nature* just before the Meeting (vol 441, June 2006).

In spite of the wide variety of topics treated during the Meeting, and of its single-session format, both the oral and the poster sessions were widely attended. Indeed, the Meeting proved an efficient forum to promote cooperation and expertise exchange among different specialists.

The logistic and social activities also contributed to the success of the Meeting. The Scientific sessions were held in the Euskalduna Palace of Bilbao, a venue declared World's best Congress Centre 2003. It is widely acknowledged that the Basque Country cuisine is one of the best of Europe, a fact that participants could appreciate by themselves during the four magnificent lunches provided by the Euskalduna Palace restaurant and also in the first-class Gala dinner celebrated in the Aretxondo restaurant of Galdakao. A visit to the famous

Bilbao Guggenheim Museum was of course arranged for all participants, and also a trip to the historic village of Gernika. City tours for guests were organized and led by the Bilbao Turismo and Convention Bureau. Last, but not least, a farewell Basque Dance exhibition was performed by the Andra Mari Folklore group of Galdakao. All these activities were made affordable thanks to the generous support from several institutions, particularly from the local Government of the Bizkaia province, the Basque Country University, the Faculty of Science and Technology, the Basque Energy Board, the Town Councils of Bilbao, Getxo, Zumaia and Galdakao, and other organisms.

The field trips were also well attended: 77 specialists participated in the mid-conference trip, 70 in the Zumaia field trip, and the 42 places available for the Pyrenean trip were fully booked several weeks before the Meeting. The mid-conference trip was dedicated to inspect the Gorrondatxe section, an expanded (ca 700 m) uppermost Ypresian-lower Lutetian deep-marine turbiditic succession continuously exposed in sea-cliffs; in this section it could be demonstrated that different events used to place the Ypresian/Lutetian boundary, so far thought to be coeval, actually occur at different stratigraphic levels (i.e., P9/P10 planktic foraminiferal boundary; CP12a/CP12b calcareous nannofossil boundary; SBZ12/SBZ13 larger foraminiferal boundary; and boundary of magnetic polarity chrons C22n/C21r). The Zumaia section is one of the best known and most studied land-based lower Paleogene sections of the world. This is due, in part, to the fact that the section contains a continuous and expanded deep-marine hemipelagic record of the late Maastrichtian, Paleocene and early Ypresian, it is easily accessible and it is beautifully exposed in sea cliffs. But also, the position of the section between the Tethys and the North Sea makes it an important link between these two classical regions. The visit to Zumaia started with the official inauguration of the Algorri Interpretation and Research Centre, an initiative of the Zumaia Town Council to assist and promote research of the section. The field trip itself included an inspection of the K/T and the P/E boundaries, and also a discussion of the possible placement of the Danian/Selandian and Selandian/Thanetian global stratotype boundaries, for which Zumaia is the leading candidate. Further, the cyclostratigraphy and magnetostratigraphy of the succession were assessed, together with the evolution of foraminifers and calcareous nannofossils.

Finally, the southern Pyrenees trip was designed to offer a complete transect of the Paleocene and early Ilerdian (=early Ypresian) succession, from base-of-slope to continental setting. To that end, representative outcrops of the platform margin and base-of-slope settings were visited the first day of the trip, respectively at the Lizarraga pass and Erice sections (Navarra province). The morning of the second day was devoted to observe and enjoy the impressive vertical cliffs of the Ordesa National Park, in the Huesca province, which contain laterally extensive exposures of platform interior deposits, while the afternoon was devoted to the Campo section, the parastratotype of the Ilerdian stage and a classical section made up of nearshore and transitional deposits. On the morning of the last day the Esplugafreda section was visited. Located in the W of the Lleida province, this section is entirely made up of continental «Garumnian» deposits and contains an expanded (ca. 20 m) PETM interval, recorded by a 6‰ negative carbon isotope excursion in carbonate soil nodules. The trip finished with a visit in the afternoon to the Romanesque church of

Santa María de Taüll, a World Heritage Site situated in the Boi valley (Vall de Boi), in the NW of the Lleida province.

The weather during both the Zumaia and the Pyrenean trips was quite changeable, with frequent storm showers. Yet, to general amazement, all the showers took place while participants were either travelling in the buses or safely within hotels, and not a single drop of rain fell on them. Contrary to some participant's belief, however, this was not due to any special arrangement by the organizers, but just sheer luck.

The next CBEP Meeting will be held on January 2009, at New Zealand, and will be organized by Dr. Chris Hollis.

*Victoriano Pujalte and Xavier Orue-Etxebarria
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IAS Postgraduate Grant Scheme

IAS has established a grant scheme designed to help PhD students with their studies. We are offering to support postgraduates in their fieldwork, data acquisition and analysis, visits to other institutes to use specialised facilities, or participation in field excursions.

About 10 grants, each of up a maximum of 1000 Euros, are awarded twice a year.

These grants are available for IAS members only, and only for postgraduates. Students enrolled in MSc programs are not eligible for grants. The application must include a short CV and a budget. A letter from the supervisor supporting the application must be sent directly to the Treasurer of the IAS.

An application form is on our website (<http://www.iasnet.org>). Moreover, the application form can be requested from the Treasurer's Office (IAS, Office of the Treasurer, Ghent University, Department of Geology and Soil Science, Krijgslaan 281/S8, B-9000 Gent, Belgium; E-mail: *Patric.Jacobs@UGent.be*)

Application deadlines: 1st session: **March 31**
2nd session: September 30

Recipient notification: 1st session: **before June 30**
2nd session: before December 31

CALENDAR

2ND INTERNATIONAL EVAPORITE CONFERENCE (IN ASSOCIATION WITH 12TH ADIPEC)

7-8 November 2006
Abu Dhabi,
U.A.E.

Prof. Abdulrahman S. Alsharhan
Conference Chairman. sharhana@emirates.net.ae
[http://www.adipec.com/
index.cfm?fuseaction=Conference.Evaporate](http://www.adipec.com/index.cfm?fuseaction=Conference.Evaporate)

4TH LATIN AMERICAN CONGRESS OF SEDIMENTOLOGY and XI ARGENTINIAN MEETING OF SEDIMENTOLOGY *

20-24 November, 2006
Bariloche
Argentina

Dr. Daniel G. Poiré
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ALLUVIAL FANS 2007 *

18-22 June, 2007
Banff, Alberta,
Canada

Dr. Philip Giles
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Saint Mary's University
Halifax, Nova Scotia, Canada
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Web-page: [http://husky1.smu.ca/~pgiles/AF2007/
AlluvialFans2007.htm](http://husky1.smu.ca/~pgiles/AF2007/AlluvialFans2007.htm)

**AN INTERNATIONAL CONFERENCE ON DELTAS (BANGLADESH VENUE): DELTAIC
GATEWAYS - LINKING SOURCE TO SINK**

6-13 January, 2007
Geological Survey of
Bangladesh
Bangladesh

Dr. Yoshiki Saito
E-mail: yoshiki.saito@aist.go.jp
Web-page: <http://unit.aist.go.jp/igg/rg/coast-rg/ADP.html>

13TH BATHURST MEETING OF CARBONATE SEDIMENTOLOGISTS

July 16th - 18th 2007
Norwich, UK

Convenors Dr A. Kendall and Dr J. Andrews
School of Environmental Sciences,
University of East Anglia, Norwich, NR4 7TJ, UK
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4TH INTERNATIONAL LIMNOGEOLOGY CONGRESS *

July 11-14, 2007
Barcelona
Spain

Contact: Dr. Lluís Cabrera
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Web-page: www.ilic2007.com



**25TH MEETING OF SEDIMENTOLOGY
(SEDIMENTOLOGY AND ENVIRONMENT)***

September 4-7, 2007
Patras,
Greece

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