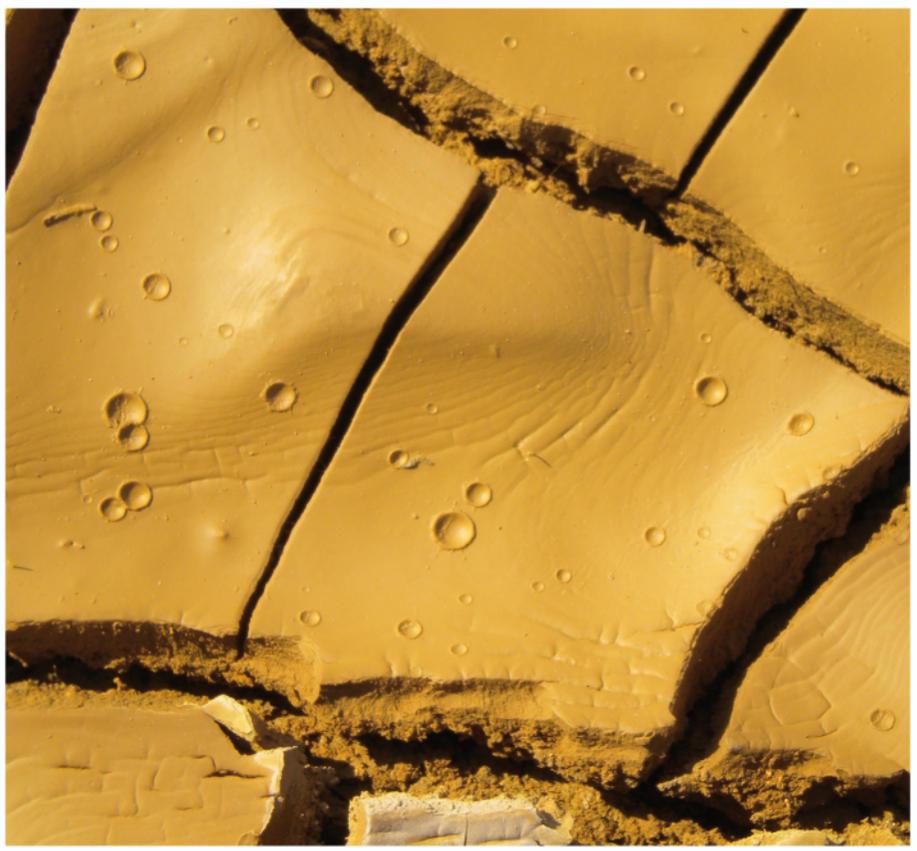


# IAS

NwLtr 239

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[www.sedimentologists.org](http://www.sedimentologists.org)



**International Association  
of Sedimentologists**

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## EDITORIAL

**N**ewsletter 239 has the report of the Annual meeting of the Sedimentological Society of Japan as main issue. It has been held on December 17-26, 2011 in Nagasaki University, Kyushu Island although originally scheduled in the middle of March but postponed due to the Tsunami disaster.

The central part of the Newsletter is dedicated to the post graduated grant scheme report of José Ignacio Cuitiño (Sedimentology and paleoenvironments of a tertiary marine transgression with emphasis in oyster palaeoecology) and Maarten Van Daele (Sedimentary imprint of the 2010

Maule earthquake, Central Chile). Both reports deal with South America lakes sedimentology.

Electronic Newsletter (ENIAS) started in November 2011 continues to bring short information to members. For info on ENIAS contact Nina Smeyers at [nina.smeyers@ugent.be](mailto:nina.smeyers@ugent.be).

Check the new Announcements and remember that meetings and events in CAPITAL and/or with \* are fully or partially sponsored by IAS. More info @ [www.sedimentologists.org](http://www.sedimentologists.org)

*Vincenzo Pascucci*  
*(General Secretary)*

## REPORT

### Annual meeting of the Sedimentological Society of Japan

The annual meeting of the Sedimentological Society of Japan was held December 17-26, 2011 in Nagasaki University, Kyushu Island. It had been scheduled originally in the middle of March but postponed due to the disaster, the 2011 off the Pacific coast of Tohoku Earthquake and Tsunami on March 11. The meeting consists of short course (Dec17-22), general presentations (Dec23-24), special session (12/24), and excursion (Dec25-26). The theme of short course was auto-stratigraphy based on tank experiments. 70 presentations took

place in the general and special sessions. The theme of special session was the estimation of tsunami recurrence and inundation based on tsunami deposits. In post-meeting excursion participants looked at beautiful outcrops of Cretaceous submarine fan deposits in western Kyushu Islands under the fine weather. Over 70 participants including 21 students came and attended the meeting from all areas of Japan.

The next annual meeting will be held in Hokkaido University in June 2012.

Because of serious tsunami damage



*A party on the first day. Our president Prof. Makoto Ito in the center left in the front row. Photo by Dr. Kitazawa.*



*A short course and all presentations were given in the Nagasaki University. People from newspaper and TV companies came in the special session on the second day. Photo by Dr. Kitazawa.*



*Participants enjoying fine outcrops of Cretaceous submarine fans in a post-meeting field excursion, Kyushu Islands. Photo by Dr. Kitazawa.*



along the Pacific coast in Tohoku area, research on tsunami deposits suddenly attracts considerable attention of the general public in Japan. Several researchers in our society also went to field survey just after the tsunami, and seven presentations were given in this meeting. Based on the discussions in the special session, a series of lectures

and workshops on tsunami deposits are being planned by the society.

Lastly we pray souls of people killed in the disaster may rest in peace.

*Junko Komatsubara*  
*IAS National Correspondence from Japan*  
*[j.komatsubara@aist.go.jp](mailto:j.komatsubara@aist.go.jp)*

## STUDENT CORNER

### Sedimentology and paleoenvironments of a tertiary marine transgression with emphasis in oyster palaeoecology

*(IAS POSTGRADUATE GRANT SCHEME REPORT - 2<sup>ND</sup> SESSION 2010)*

The IAS Postgraduate Grant was requested to cover the expenses for field work in the Lago Posadas area at northwest Santa Cruz Province, Austral Patagonia, Argentina. This field work was part of my PhD Thesis on paleoenvironmental reconstruction of the Miocene marine transgressions in Patagonia, which is based upon sedimentologic and isotopic data. The field work included the facies analysis of the early Miocene marine «Patagonian» beds and their transition to the early-middle Miocene terrestrial «Santacrucian» beds. Sedimentological observations integrated physical parameters as grain size, sedimentary structures, palaeocurrents, bed geometry and limiting surfaces, as well as paleoecological data obtained from trace and body fossils preserved within the deposits.

Oysters are a common fossil within the Miocene marine units in Patagonia. They appear preserved in sediments deposited in diverse paleoenvironments, such as marine offshore, nearshore, estuaries or tidal flats (Parras and Casadio, 2006; Cuitiño and Scasso, 2010). It is known that this group of bivalves lives in normal marine to

salinity reduced environments (Surge et al., 2001; Kirby, 2001). The «Patagonian» oysters develop a large and thick shell mainly of calcitic composition which prevents diagenetic modification. As they were found preserved in many different paleoenvironments, oysters are an excellent proxy of the chemical characteristic of the waters they lived, especially variations of salinity (Cuitiño et al., 2010). Additionally, oysters don't have vital effects over the isotope composition of the carbonate they secrete (Surge et al, 2001).

Every oyster-bearing bed in the sections was sampled in order to obtain calcareous material for C, O and Sr isotopic analysis and finally compare the sedimentologic paleoenvironmental reconstruction to the isotopic sea water geochemistry.

#### Preliminary results

In the study area the marine beds of the «Patagonian» transgression forms part of

a thick succession of sediments that are part of the northern end of the Austral or Magallanes Basin. The studied unit is about 100-140 m thick,

lies above Eocene basalt lavas known as «Basalto Posadas» and is covered by a thick pile of fluvial strata formally known as the Santa Cruz Formation of early to middle Miocene age (Santacrucean Land Mammal Age).

Five sedimentary sections were analyzed in an outcrop belt at the southern margin of the Lago Posadas valley (Figure 1). These logs include the entire marine section and the lower part of the overlying fluvial section and emphasis was made on marginal marine facies between marine and terrestrial strata where oyster banks were recognized. In Figure 2 the sedimentary logs are represented schematically.

The sedimentary evolution of the analyzed succession could be divided in four facies associations (FA) from base to top:

- 1- The lower FA1, in contact with the underlying basaltic lava flows is composed essentially

by marine green sandstones, with variable degree of bioturbation and abundant marine invertebrates, including the large oyster *Crassostrea hatcheri*. Ubiquitous mud drapes and reactivation surfaces in foresets of cross bedded sets indicate tidal action in these facies. Muddy intervals are scarce.

- 2- Transitionally follows the FA2 composed of fully bioturbated and very rich fossiliferous sandstones that passes upward into bioturbated siltstones and mudstones with variable proportion of well preserved marine fauna. This stage comprises a fining and deepening upward succession.
- 3- FA3 is an intercalation of thick sandy intervals with muddy ones, with varying degrees of bioturbation and

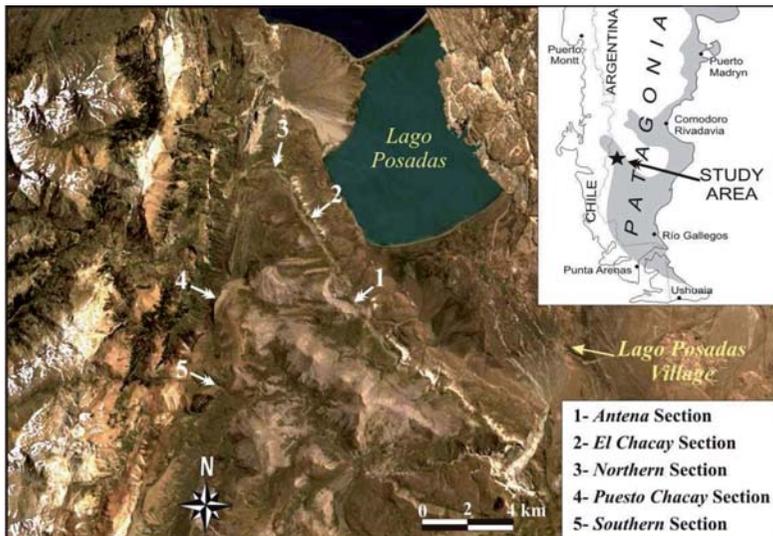


Figure 1. Location map of studied sections.

some indicators of tidal action and storm events. Plant fragments increase in

abundance to the top while bioturbation decreases in the same sense. Monospecific

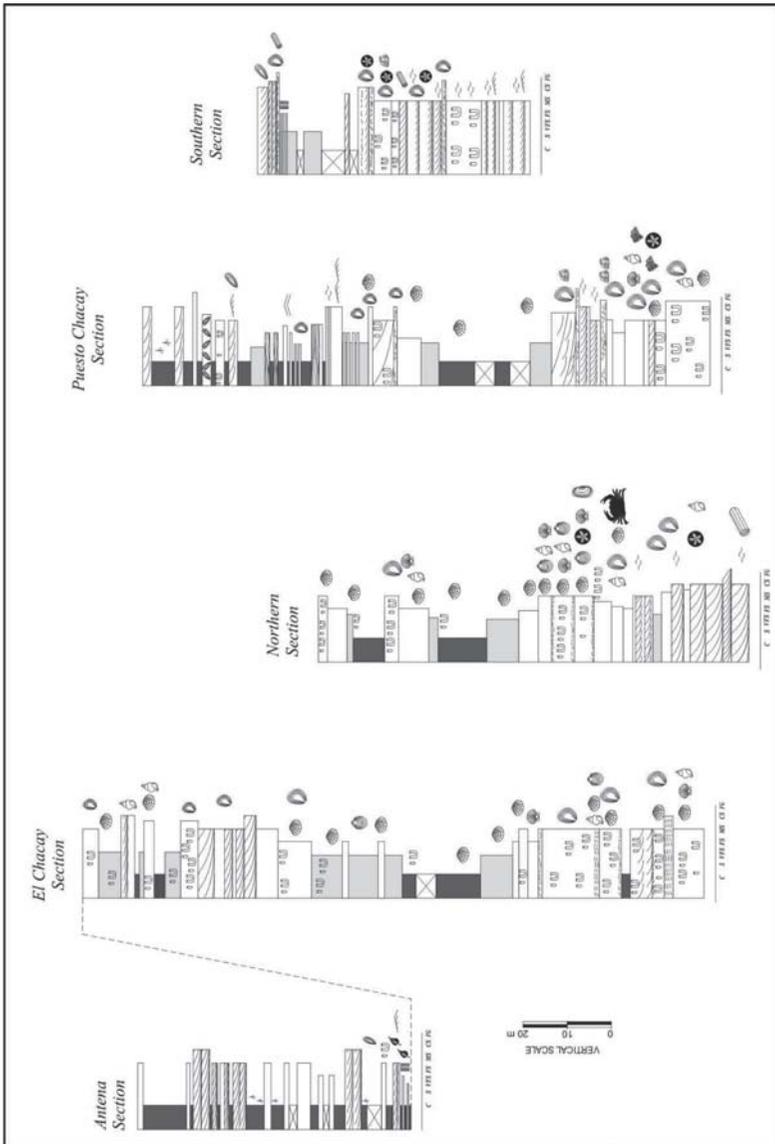


Figure 2. Schematic sedimentary logs measured in each section.

oyster beds in life position are preserved within this portion of the succession.

- 4- Finally, FA4 is a thick and monotonous succession of muddy intervals with paleosol features such as rootlets and slickensides interbedded with thick sandy massive to cross-bedded tabular and lensoidal strata.

The above summarized facies associations represent the evolution of the sedimentary environment as follows: first, a widespread transgression covers a preexisting topography creating irregular coastlines. In this framework estuaries are likely to occur and tidal action was an important process in sediment transport and deposition. Subtidal sand bars are the main feature preserved within this environment. As transgression continued, deepening of the basin results in slower sedimentation rates and finer-grained sedimentation undergoing strong bioturbation. After the transgressive maximum the accommodation space decreased and the shallowing-upward stacking

pattern of facies consists of offshore, shoreface and lagoonal deposits. Finally, the marine and marginal marine beds are covered by low energy fluvial deposits, composed of sandy channel beds and sandy to muddy flood plain deposits.

#### Future work

The schematic sedimentological analysis presented here is preliminary and much more sedimentological and paleontological information is available for these sections. For example, lateral facies variations, bounding unconformities and stratigraphic sequences will be defined

as well as the ichnology and the paleoecology of the marine biota, especially of the oyster beds.

Materials from sampled oysters are currently in preparation for isotopic analysis. Petrographic observation of the biogenic carbonate is necessary in order to account for diagenetic modification of the original calcitic composition. Samples for carbon and oxygen isotope analysis will be extracted with a microdrill on polished surfaces of the shell if the calcite is pristine. Each microsample represents a single growth increment of the specimen, allowing sclerochronologic analysis of the fossil oysters. Critical information from transitional environment will arise from determination of paleotemperature and paleosalinity from oysters of different facies associations.

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*José Ignacio Cuitiño*  
*Department of Geological Sciences*  
*Buenos Aires University, Argentina*  
*joseignacio@gl.fcen.uba.ar*

## STUDENT CORNER

### Sedimentary imprint of the 2010 Maule earthquake (Central Chile)

*(IAS POSTGRADUATE STUDENT GRANT REPORT 1<sup>ST</sup> 2010)*

#### Introduction

The Mw 8.8 Maule earthquake that occurred on the 27th of February 2010 completes the top 5 of the strongest instrumentally recorded earthquakes. Such megathrust earthquakes are not uncommon in Chile. The Mw 9.5 Valdivia earthquake in May 1960 was the largest earthquake ever recorded and similar earthquakes have been described in historical documents. The last megathrust earthquake to affect the 2010 rupture zone occurred in 1835 and was thoroughly described by Charles Darwin when he arrived with the Beagle in Concepción. Witnessing the devastation caused by this earthquake was key in the development of his evolutionary theory.

The Maule earthquake had a rupture length of over 500 km and affected 80 % of Chile's population. This megathrust earthquake thus had an impact on a vast area that spans different climate zones, ranging from mediterranean in the north to temperate oceanic in the south, and from coastal in the west to alpine in the east. The affected area contains several lakes of variable sizes and in different environments that can record

earthquakes in different ways. Mountain lakes might be affected by rock-fall events triggered by the earthquake, while coastal lakes have the potential to record associated tsunamis. Some of the lakes may be susceptible to subaquatic mass wasting, depending on their bathymetry, morphology and type of sediment.

Characterizing the sedimentary imprint of this well described event in different types of lakes is crucial for lacustrine paleoseismological research in this region. Comparing these records to eye-witness reports and shaking intensities will help to determine the minimum intensity threshold for creating such sedimentary imprints, and to gain insights in the earthquake-recording capacity of each lake system. This information is crucial to estimate the strength of older, paleo-earthquakes, the imprints of which are also present at deeper levels in our sedimentary records.

#### Fieldwork

In January 2011 fieldwork was carried out in the area affected by the 2010 Maule earthquake. We collected 54 sediment cores from 10 lakes in between



*Figure 1.- Location map of the studied area.*

Santiago in the north and Valdivia in the south: Laguna Negra, Laguna Lo Encañado, Laguna Aculeo, Lago Vichuquén, Laguna de le Laja, Lago Lanalhue, Laguna Butaco, Lago Villarrica, Lago Calafquén and Lago Riñihue. When possible, local inhabitants have been interviewed about the events of the 27th of February 2010. However, due to unforeseen circumstances, we could not complete eye-witness reports for all lakes. This work will be completed during a next field season.

### Participants

- ◆ Jasper Moernaut, Post-doc, Ghent University, Belgium.
- ◆ Maarten Van Daele, PhD student, Ghent University, Belgium
- ◆ Willem Vandoorne, PhD student, Ghent University, Belgium
- ◆ Alejandro Peña, Field technician, Universidad de Concepción, Chile

The fieldwork has been carried out with two or three persons at a time.

### Methodology

The gravity cores have been taken with a Swiss corer (Mario Pino,

Universidad Austral de Chile, Valdivia) from a zodiac (Roberto Urrutia, Universidad de Concepción). The corer was made heavier by adding 1 to 2 extra weights, depending on the type of sediment. The zodiac was equipped with a small hand winch to lower and lift the corer.

### Field-work locations

#### *Laguna Negra*

Laguna Negra is an Andean mountain lake at an altitude of 2700 m. The lake consists of two sub-basins, both with a maximum depth of more than 250 m. In each sub-basin three short cores were taken from the main inflow towards the deepest basin. In some of the cores recent coarse-grained deposits could be observed. The slopes surrounding the lake consist of incoherent debris and in the whole area rock avalanches were reported during the earthquake.

#### *Laguna Lo Encañado*

Laguna Lo Encañado is a small lake (600 m wide) located 200 m lower than Laguna Negra. It has a relatively flat bottom with a maximum depth of

32 m and a delta feeding the lake in the north. Two cores were taken in this lake: one in the deepest part and a second one closer to the delta.

### *Laguna Aculeo*

Laguna Aculeo is a eutrophic lake in the Coastal Range of Central Chile. The maximum water depth is 6 m and 6



*Figure 2.- Lakes of the studied area*



*Figure 3.- Sampling in the lakes of Chile*

short cores were taken along a longitudinal transect. No landslides were reported in the lake's dry catchment, but local inhabitants did report an anomalous strong surging of the lake during and after the earthquake. This surging could possibly have affected the shallowest parts of the lake.

#### *Lago Vichuquén*

Lago Vichuquén is a coastal lake in Central Chile with a maximum depth of 30 m. 13 cores of up to 2 m long were taken throughout the lake. This transect connects the different inlets with the outlet where seawater flowed into the lake when the earthquake-generated tsunami reached this part of the coast. Along some borders of the lake the coastline collapsed, causing damage to

quays and gardens of the many holiday houses around the lake.

#### *Laguna de la Laja*

Laguna de la Laja is a large mountain lake in the Bío Bío District, which is dammed by the Antuco volcano. In total, five cores were taken in the deep basin and in the two western arms. Since no people live next to this lake there are no reports, but most of the cores do appear to have a coarse fining-upwards deposit at their top.

#### *Lago Lanalhue*

Lago Lanalhue is also a coastal lake about 150 km south of Concepción. Coastal lakes such as Lago Lanalhue have been formed in the Holocene by co-seismic uplift of the coastline during repeated megathrust earthquakes, and

as such also during the 2010 earthquake the outlet dried up and almost all inhabitants reported a permanent rise of the lake level. Even though the last winter was dry, several quays and beaches stayed submerged during this summer. Inhabitants living on flat coastlines along the main basin reported a slow up and down movement of the lake level during the day following the earthquake, which might indicate a small seiche after the earthquake. In total, ten cores were taken throughout the basin to identify a possible imprint of the earthquake in the lake.

#### *Laguna Butaco*

Laguna Butaco is a small coastal lake (1.5 km long) located 30 km south of Lago Lanahue. Three cores were taken in this lake, where one local reported the tsunami to have reached the lake.

*In the following three lakes we had already taken core cores in previous expeditions. We could thus take the cores on strategic locations.*

#### *Lago Villarrica*

Lago Villarrica is a large glacial lake (21 x 9 km) with a maximum depth of 167 m. The harbor master of the small harbor of Villarrica reported a small tsunami after the earthquake. Six cores were taken with the purpose to find a deposit related to the 2010 earthquake. Most of these cores were taken in the main deep basin.

#### *Lago Calafquén*

Lago Calafquén is also a large glacial lake (24 x 2-6 km) with a maximum depth of 217 m. The lake has a long deep basin and a complex bathymetry with several islands in the south-western part. Six cores were taken throughout the lake in order to find a possible imprint of the 2010 earthquake.

#### *Lago Riñihue*

Lago Riñihue is a long (28 x 3-4 km), very deep lake with a maximum depth of 323 m. Three cores were taken in the western part of the lake.

After shipping of the 54 cores to Belgium, they have all been logged by a Geotek multi-sensor core logger at ETH (Zürich) in the past months and some of the cores have already been opened and described. Most of these do indeed contain a deposit related to the 2010 earthquake and most of the lakes have thus recorded this earthquake. However, the type of deposit differs considerably between lakes. Further sedimentological, geochemical and petrophysical analyses in the coming months will result in a detailed catalogue and characterization of the 2010 event deposit in all the studied lakes.

*Maarten Van Daele  
Renard Centre of Marine Geology  
Ghent University*

## ANNOUNCEMENTS

### Membership renewal

So far already more than 800 members renewed their IAS membership for 2012! If you haven't, go to the IAS web site, sign in (please fill in or update your address details as correct and complete as possible to avoid surface mail to be sent back) and renew your subscription. Should your e-mail address have changed, please update in order to avoid loss of important IAS mailings.

### 29<sup>th</sup> IAS Meeting of Sedimentology, Schladming (Austria)

The 29th IAS Meeting of Sedimentology will be held in Schladming (Austria) on 10-13 September 2012. The meeting website is now fully operational, and an updated meeting flyer can be downloaded [here](#).

Abstract submission via our new online procedure is now open. Deadline for abstract submission is 30 April 2012. Online registration (for the meeting, short courses and/or field trips) is now also possible. Deadline for registration with early bird reduction is 30 April 2012.

We are all looking forward to meet again in the Alps!

### 6<sup>th</sup> International Symposium on Lithographic Limestone and Plattenkalk

*MUSEO DEL DESIERTO, SALTILLO, MEXICO, 4 - 8 MARCH 2013*

The Museo del Desierto invites you to the 6th International Symposium on Lithographic Limestones and Plattenkalk. This multidisciplinary meeting is planned to address aspects of the study of lithographic limestones and plattenkalk deposits across all disciplines, from palaeontology (taxonomy, palaeoecology, taphonomy), to geology (stratigraphy, sedimentology, palaeoenvironments), and also mineralogy and petrology of Plattenkalk deposits and related Fossil-Lagerstätten. The meeting is organized in collaboration with the Institute of Earth Sciences of the University of Heidelberg, Germany. We plan fieldtrips to the famous plattenkalk deposits of Vallecillo, but also to new localities.

Please contact [ISLLP2013@geow.uni-heidelberg.de](mailto:ISLLP2013@geow.uni-heidelberg.de) for more information.

## Reminder

4<sup>th</sup> IAS International Summer School of Sedimentology 2012. Sedimentary archives of Regional vs. global change: case study of Neogene Basins of Southern Spain

The 4<sup>th</sup> IAS International Summer School of Sedimentology 2012 for PhD students will be held southern Spain, near Málaga and near the famous Neogene Sorbas and Tabernas Basins.

- ◆ When: 30 September to 7 October 2012
- ◆ Where: Carboneras (Almeria), Spain, Hotel El Dorado Palace (<http://www.eldorado-carboneras.com/>)
- ◆ Topics to be addressed: Evaporites and carbonate sedimentology, tropical and temperate carbonates, cyclostratigraphy and astrochronology, carbon isotope geochemistry and the global carbon cycle, concepts of clastic sedimentology and turbidite sedimentology. Lecturers include Juan Carlos Braga and Jose M. Martin (University of Granada, Spain), Peter Haughton (University College Dublin, Ireland), Frits Hilgen (University of Utrecht, The Netherlands), Helmut Weissert & Judith A. McKenzie (ETH Zürich, Switzerland).
- ◆ Who should apply: Doctoral students who are interested in aspects of carbonate or evaporite sedimentology, turbidite sedimentology and basin evolution, or in new tools in stratigraphy. Must be IAS student member! Up to 28 students will be accepted. Send application directly to IAS Office of the Treasurer at <http://www.sedimentologists.org/>.
- ◆ Application deadline: 15 May 2012, acceptance announced by 30 May 2012.
- ◆ Costs: The costs are estimated to be 300 Euros/student, double room, full pension for 7 days and transfer to and from Málaga airport. Travel costs are not included, but students can apply for a travel grant directly to the IAS student grant scheme via IAS website once notification of acceptance has been received.
- ◆ More info on IAS Newsletter 238 and [www.sedimentologists.org](http://www.sedimentologists.org)

## IAS STUDENT GRANT APPLICATION GUIDELINES

### Application

The application should be concise and informative, and contains the following information (limit your application to 1250 words max.):

- ♦ Research proposal (including Introduction, Proposal, Motivation and Methods, Facilities) – max. 750 words
- ♦ Bibliography – max. 125 words
- ♦ Budget – max. 125 words
- ♦ Curriculum Vitae – max. 250 words

Your research proposal must be submitted via the Postgraduate Grant Scheme application form on the IAS website before the application deadline. The form contains additional assistance details for completing the request. Please read carefully all instructions before completing and submitting your application. Prepare your application in 'Word' and use 'Word count' before pasting your application in the appropriate fields.

Recommendation letter (by e-mail) from the PhD supervisor supporting the applicant is mandatory, as well as recommendation letter (by e-mail also) from the Head of Department/Laboratory of guest institution in case of laboratory visit.

Please make sure to adequately answer all questions.

### Deadlines and notifications

Application deadlines:

1st session: March, 31

2nd session: September, 30

Recipient notification:

Before June, 30

Before December, 31

### Guidelines for letter from supervisor

The letter from the supervisor should provide an evaluation of the capability of the student to carry out the proposed research, the significance and necessity of the research, and reasonableness of the budget request. The letter must be sent directly to the Treasurer of the IAS by e-mail before the application deadline.

### Application Form

Research Proposal (max. 750 words)

Title: .....

Introduction (max. 250 words): .....

Introduce briefly the subject of your PhD and provide relevant background information; summarise previous work by you or others (provide max. 5 relevant references, to be detailed in the 'Bibliography' field). Provide the context for your PhD study in terms of geography, geology, and/or scientific discipline.

Proposal (max. 250 words): ...

Describe clearly your research

proposal and indicate in what way your proposal will contribute to the successful achievement of your PhD. Your application should have a clearly written hypothesis or a well-explained research problem of geologic significance. It should explain why it is important. Simply collecting data without an objective is not considered wise use of resources.

Methods (max. 125 words): .....

Outline the research strategy (methods) that you plan to use to solve the problem in the field and/or in the laboratory. Please include information on data collection, data analyses, and data interpretation. Justify why you need to undertake this research.

Facilities (max. 125 words): .....

Briefly list research and study facilities available to you, such as field and laboratory equipment, computers, library.

Bibliography (max. 125 words)

Provide a list of 5 key publications that are relevant to your proposed research, listed in your 'Introduction'. The list should show that you have done adequate background research on your project and are assured that your methodology is solid and the project has not been done already. Limit your bibliography to the essential references. Each publication should be preceded by a '\*' -character (e.g. \*Surlyk et al., *Sedimentology* 42, 323-354, 1995).

Budget (max. 125 words)

Provide a brief summary of the total cost of the research. Clearly indicate the amount (in Euro) being requested. State specifically what the IAS grant funds will be used for. Please list only expenses to be covered by the IAS grant.

The IAS will support field activities (to collect data and samples, etc.) and

laboratory activities/analyses.

Laboratory activities/analyses that consist of training by performing the activities/analyses yourself will be considered a plus for your application as they will contribute to your formation and to the capacity building of your home institution. In this case, the agreement of the Head of your Guest Department/Laboratory will be solicited by automated e-mail.

Curriculum Vitae (max. 250 words)

Name, postal address, e-mail address, university education (degrees & dates), work experience, awards and scholarships (max. 5, considered to be representative), independent research projects, citations of your abstracts and publications (max. 5, considered to be representative).

Advise of Supervisor and Head of Guest Department/Laboratory

When you apply for a grant, your PhD supervisor will receive an automated e-mail with a request to send the IAS a letter of recommendation by e-mail. You should, however, check with your supervisor everything is carried out the way it should be. It will be considered as a plus for your application if your PhD supervisor is also a member of IAS.

Supervisor's name: .....

Supervisor's e-mail: .....

If you apply for laboratory analyses/ activities, please carefully check analysis prices and compare charges of various academic and private laboratories as prices per unit might differ considerably. Please first check whether analyses can be performed within your own University. If your University is not in a position to provide you with the adequate analysis tools, visiting another lab to conduct the analyses yourself strengthens your application considerably as it

contributes to your formation and to capacity building of your home University. Please check with the Head of Department/Laboratory of your guest lab to assure its assistance during your visit. You should fill in his/her name and e-mail address to solicit his/her advise about your visit.

Name of Head of guest Department/Laboratory: .....

E-mail address of Head of Guest Department/Laboratory: .....

Finally, before submitting your

application, you will be asked to answer a few informative questions by ticking the appropriate boxes.

- ◆ is your supervisor a member of IAS
- ◆ was this application your own initiative
- ◆ did you discuss your application with your Supervisor
- ◆ did you already had contact in the past with the Head of the Guest Department/Laboratory (if appropriate)

## CALENDAR

### DEEP SEA CORALS (ISDSC5) - 2012 \*

*2<sup>nd</sup>-7<sup>th</sup> April  
2012  
Amsterdam  
The Netherlands.*

Tjeerd Van Weering  
NIOZ, the Royal Netherlands Institute for Sea  
Research  
tjeerd.van.weering@nioz.nl  
www.deepseacoral.nl

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### EUROPEAN GEOSCIENCES UNION 2012 (EGU2012)\*

*22<sup>nd</sup>-27<sup>th</sup> April  
2012  
Vienna  
Austria*

Info  
egu2012@copernicus.org  
<http://www.egu2012.eu>

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### Course On Seagrass Carbonate Production: from modern to fossil environment

*30<sup>th</sup> April - 4<sup>th</sup> May  
2012  
Mallorca  
Spain*

Marco Brandano  
marco.brandano@uniroma1.it  
Guillem Mateu-Vicens  
www.museucienciasnaturals.org



**Italian Association for Sedimentary Geology  
GeoSed**

2<sup>nd</sup>-6<sup>th</sup> July  
2012  
Feltre  
Italy

Massimiliano Ghinassi  
Massimiliano.ghinassi@unipd.it  
www.geosed.it

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**8<sup>th</sup> International Conference on Tidal Environments**

28<sup>th</sup> July – 5<sup>th</sup> August 5  
2012  
Caen, Normandy  
France

Bernadette Tessier  
bernadette.tessier@unicaen.fr  
www.unicaen.fr/colloques/tidalites2012/index.php

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**European Seismological Commission 33<sup>rd</sup> General Assembly**

August 19-24,  
2011  
Moscow,  
Russia

tuchkova@ginras.ru



**29<sup>th</sup> IAS MEETING OF SEDIMENTOLOGY \***

10<sup>th</sup>-13<sup>th</sup> September  
2012  
Schladming  
Austria

Hans-Jürgen Gawlick  
University of Leoben  
IAS2012@unileoben.ac.at  
www.sedimentologists.org/ims-2012



**86<sup>th</sup> Congress of the Italian Geological Society (SGI)  
«Mediterranean: a geological archive from past to the present»\***

18<sup>th</sup> -20<sup>th</sup> September  
2012  
Arcavacata di Rende,  
Italy

Salvatore Critelli  
critelli@unical.it  
www.socgeol.it

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**GV and SEDIMENT «Of Land and Sea: Processes and Products»**

23<sup>rd</sup> - 28<sup>th</sup> September  
2012  
Hamburg  
Germany.

Christian Betzler  
gv-hamburg2012@gv-conference.de  
www.gv-hamburg2012.de/.

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**AT THE EDGE OF THE SEA: SEDIMENTS, SEA LEVEL, TECTONICS, AND  
STRATIGRAPHY AS MAIN ELEMENTS OF A MULTIDISCIPLINARY  
APPROACH AND CORRELATION IN STUDYING QUATERNARY CHANGES \***

27<sup>th</sup>-30<sup>th</sup> September  
2012  
Alghero  
Italy

Mauro Coltorti  
Università di Siena  
mauro.coltorti@unisi.it  
www.dst.unisi.it/SEQS2012.htm

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**3<sup>RD</sup> CONFERENCE TERRESTRIAL MARS ANALOGUES\***

25<sup>th</sup> - 27<sup>th</sup> October  
2012  
Marrakech  
Ibn Battuta Centre  
Morocco

Gian Gabriele Ori  
ggori@iisps.unich.it  
www.ibnbattutacentre.org/conf/mars2012

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Contributions to be sent to:  
Vincenzo Pascucci  
IAS General Secretary  
Dpto. Scienze della Natura  
e del Territorio  
Università di Sassari  
Via Piandanna, 4  
07100 Sassari, Italy  
Tel.: +39 079228685  
[pascucci@uniss.it](mailto:pascucci@uniss.it)

