



## 2010 ANNUAL REPORT

In 2010 the Tropical Rivers group advanced in two ways:

- a) Increasing the participation of researchers from in developing countries in conferences, training courses and, importantly, favoring the participation of those researchers in special issues of internationally recognized and indexed journals;
- b) Trying to identify gaps in knowledge and generating new strategies to fill up the identified gaps with new knowledge through theoretical approaches and increasing international collaboration.

Under this perspective, during the second year of activities the Project was able to generate international meetings, supporting young and seniors researchers from in developing countries and editing special issues of international and regional journals. Additionally, several of the participants also produced interactions with governmental agencies in projects related to river management, planning, hazards, restoration and engineering. We made during 2010 a particular effort to incorporate some African researchers and to generate a front of discussion on the Caribbean region. The meetings during 2010 concentrated in Brazil and India. The countries involved in the project activities during 2010 were: Argentina, Australia, Bolivia, Brazil, Cameroon, Colombia, China, France, Germany, India, Puerto Rico, USA and Venezuela. Researchers from all these countries participated of meetings, contributed for special issues of international journals edited by the IGCP 582 or developed collaborative researches in Tropical rivers.

*Groups participating of IGCP 582 that maintain long term research activity in some key tropical regions.*

- 1) **BRAZIL.** The Brazilian groups of Maringa State University, Federal University of Sergipe, Amazonas State University, Goias State University among others Brazilian participants, produce applied science and transfer results to National and State agencies such as Environmental State Agencies, Water Resources State agencies, PETROBRAS national oil company among others and maintain collaborative research with French institutions. The environmental projects in the San Francisco basin still actives until 2011 funding by Petrobras-Brazil.

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- 2) ARGENTINA. The Argentinean participants also develop projects that produce social benefits. The group of the National University of el Litoral is a constant referent in applied projects in Argentinean rivers and maintain close links with state agencies and private consultancies services. Additionally Argentinean researchers are providing support to the Tri-National Basin committee of the Pilcomayo River (Argentina, Brazil and Bolivia). During 2010 the IGCP 582 participants of Universidad del Litoral Argentina, provided a new set of consultancies as solicited by the Tri-National Commission of the Pilcomayo.
- 3) VENEZUELA. The group of Universidad Pedagógica el Libertador (UPELD) in Venezuela concentrates the research in the Apure fluvial basin and develops applied research for the national state agency INGEOMIN. One PhD students is developing activities in the Orinoco Llanos (we granted this participant in 2009)
- 4) GERMAN. The German group of the University of Frankfurt maintains several activities and project in central Africa (Cameroon, Democratic Republic of Congo and Central African Republic) among others.
- 5) INDIA. The Indian group of IITK is developing a large project with remarkable social relevance on river dynamics and flood risk evaluation in the Kosi River which has been funded by the Ministry of Earth Sciences, Govt. of India.
- 6) CHINA. In China ECNU develop a long term program of research on the Yang Tze basin transferring results to society and in special to national agencies.
- 7) USA. Researchers from University of Texas at Austin are producing results on rivers in Mexico and south-west of USA. Several projects are related to applied basin management and supported by Texas State agencies.
- 8) COLOMBIA. In Colombia the group of EAFIT University maintains research in collaboration with a variety of agencies and with the Colombian Navy surveying rivers delta sand estuaries. The group of research of Prof. Restrepo (EAFIT University) develop environmental surveys in the Pacific fluvial watershed collaborating with the Colombian Navy and transferring results to the government.
- 9) CAMEROON. This year we had the participation of Dr. Jean Guy Dzana from Cameroon. Had been our intention to include researchers from Africa in the projects but it is not an easy task for several reasons: a) because the scarcity of local professionals working on fluvial processes in equatorial Africa and because of the high cost to support the participation of African professionals who demand practically 100% of economic coverage.
- 10) PUERTO RICO & CARIBBEAN REGION. The participation of Carlos Scharron of The University of Puerto Rico opened a new perspective in our IGCP project allowing as to cover this year the Caribbean region, once the collaboration with M. Bezada (Venezuela) and Juan Restreppo (Colombia) will be possible in the future.

### *IGCP 582 meetings with approximate attendance and number of countries*

During 2010 the activities of IGCP 582 concentrated in Brazil and India. The main annual meeting happened linked to the 45 Brazilian Congress on Geology, hold in Belem, Brazil from September 26<sup>th</sup> to October 1<sup>st</sup>. The activities were organized by Prof, Jose. C. Stevaux (UAM-Brazil and co-leader of IGCP 582) and Prof. Naziano Filizola (UFAM-Brazil). At total we had more than forty contributions (30 in English-see abstracts in appendix and 12 in Portuguese) from Argentina, Brazil, Cameroon, Colombia, Germany, Venezuela, China, France, India and Puerto Rico. The total involved participants (authors and co-authors) were

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eighty eight (88). Additionally the representatives of IGCP 582 Prof. Edgardo Latrubesse (UT-Austin-USA) and Jean P. Bravard (Univ. Lyon-France) were invited to offer plenary talks to the general audience of the Brazilian Congress.

In India a Regional meeting was organized by Dr. Snigdha Ghatak and had the participation of Indian researchers (see appendix). IGCP projects in India are closely followed up by the premium geological institution, Geological survey of India. The idea of Indian participants and a main objective of our co-leader Prof. Rajiv Sinha, is to evolve a program within the GSI system and relating items of the IGCP 582 project for implementation. Was also decided to have IGCP 582 portal in India linked to the main page of the IGCP 582. This portal will host all kind of data, reports and information related to projects related to the IGCP themes.

### *Educational, training or capacity building activities*

During 2010 the groups were training the young students and favouring exchanges among the different groups. Regional courses were developed in:

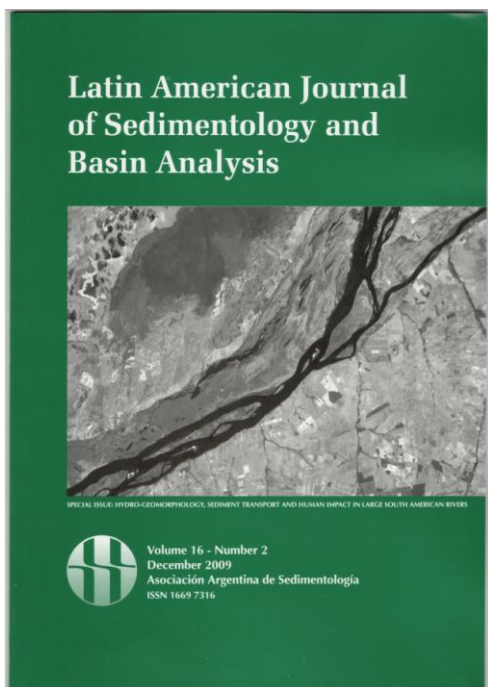
- a) Federal University of Sergipe, Brazil. Prof. J.C. Stevaux applied the course on Fluvial Dynamics and Sedimentometry;
- b) State University of São Paulo at Rio Claro, Brazil. Prof. E.M. Latrubesse applied the course

### *Participation of scientists from developing countries, and in particular young and women scientists*

We maintain a good equilibrium of genera. In relation to the participation of young researchers from developing countries a major support was provided to Jean Guy Dzana from Cameroon. Additionally we supported participants from Latin-American countries such as Argentina, Brazil, Colombia and Venezuela.

### *List of most important publications (details on contents are described in the Appendix)*

Latrubesse, E and Stevaux. (Guest Editors), (2009). Hydro-geomorphology, sediment transport and human impacts in large South American rivers. *Latin American Journal of Sedimentology and Basin analysis*, 16 (2), 77-131. (This issue was printed in February 2010).



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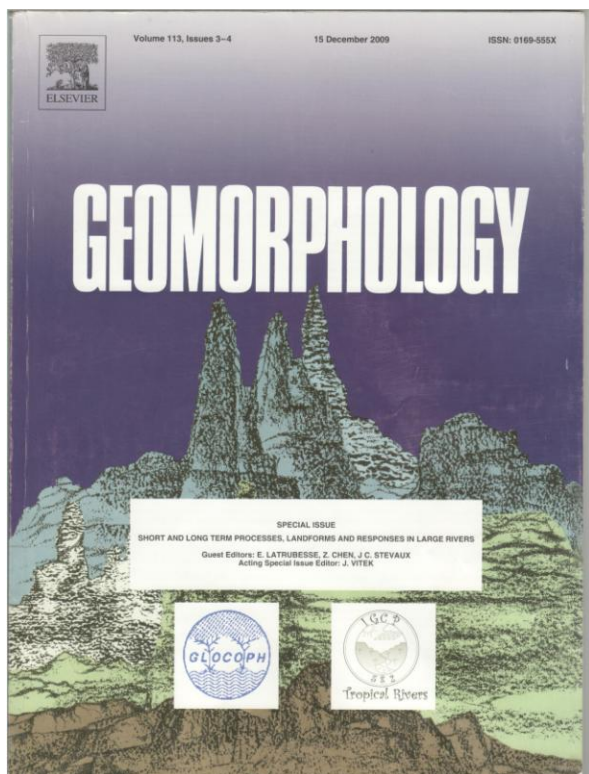
Editor: Gonzalo D. Veiga

SPECIAL ISSUE  
HYDRO-GEOMORPHOLOGY, SEDIMENT TRANSPORT AND HUMAN IMPACT IN LARGE SOUTH AMERICAN RIVERS  
Guest Editors: Edgardo M. Latrubesse and Jose C. Stevaux

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-Latrubesse, E.M., Chen, Z. & Stevaux, J.C. (Guest editors) (2009). Short and long term processes, landforms and responses in large rivers. *Geomorphology*, 113(3-4):127-252. (This issue was printed in February 2010)



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**Special Issue**

**Short and Long Term Processes, Landforms and Responses in Large Rivers**

Edited by

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-Latrubesse, E. & Stevaux, J.C. (Editors).



Annual Symposium  
**IGCP 582-Tropical Rivers:**  
 hydrophysical processes, impacts, hazards  
 and management  
 Belem- Brazil, 2010



Meeting related to the Large Rivers Working Group of  
 GLOCOPH-Global Commission on Continental Paleohydrology,  
 Tropical Rivers Working Group-International Association of  
 Geomorphologists and PROSUL Program-CNPq  
 Hold at the 45<sup>o</sup> Brazilian Congress of Geology



Annual Symposium  
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 and management  
 Belem- Brazil, 2010



**BELEM, BRAZIL**  
 SEPTEMBER 29 TO OCTOBER 1<sup>st</sup>, 2010

**Organized by**

Jose. C. Stevaux (*Maringa State University-UEM, Brazil*)  
 N. Filizola (*Federal University of Amazonas-UFAM, Brazil*)  
 E. M. Latrubesse (*The University of Texas at Austin, USA*)

Meeting related to the Large Rivers Working Group of  
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 Tropical Rivers Working Group-International Association of  
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-Sinha, R., Latrubesse, E and Nanson G. (Guest Editors). Quaternary fluvial systems of the Tropics and its Palaeoenvironmental implications, Paleogeography, Paleoclimatology and Paleoecology. (volume in advanced version-will be printed during the first semester of 2011).

-Latrubesse, E. and Stevaux, J.C.(Guest Editors) Hydro-geomorphologic processes and Quaternary landforms controlling biotic components in South America. Journal of South American Earth Sciences,(in preparation will be ready during 2011).

-Stevaux, J.C and Latrubesse, E.M (Guest Editors) Revista Brasileira de Geociências. In preparation, this issue started to be prepared time ago but is delayed. We expect finishing this issue in 2011.

*Activities involving other IGCP projects, UNESCO, IUGS or others*

Our meetings involved the collaboration with the working group Tropical rivers of the International Association of Geomorphologists, GLOCOPH Large Rivers working Group and Prosul-Network, CNPq-Brazil.

### **Activities planned**

We are planning two main meetings for 2011:

- a) The main annual meeting will happen organized by Rajiv Sinha (co-leader of IGCP 582), in Kanpur, India and will have the support of the IITK and the national delegation of IGCP. The tentative date is from December 12<sup>th</sup> to 17 with three days of Symposium and three days of field trip along the Ganges River basin;
- b) The regional meeting will be a special session of IGCP 582 during the XIV Geological congress that will be held in Medellin, Colombia from August 29 to September 2<sup>nd</sup>. Professor Juan Restrepo (EAFIT University) will be the main organizer of this event.