



## **FIELD EXCURSION- RECENT GEOLOGIC HISTORY AND MORPHODYNAMICS OF THE PARANÁ RIVER**

Having a mean annual discharge of approximately 18,000 m<sup>3</sup>/s, the Paraná River is the ninth largest river of the world in water discharge. In terms of drainage area, with ~2.4M km<sup>2</sup>, the Paraná is the second largest basin of South America. The 6<sup>th</sup> edition of the RCEM 2009, held at Santa Fe City between September 21<sup>st</sup>-25<sup>th</sup>, 2009, provides an excellent opportunity to get acquainted with the geologic and geomorphologic history and processes of this fascinating river. As a part of the activities of the IGCP 582 and PROSUL Project that are related to the RCEM 2009, we are offering a one day excursion to navigate along the Paraná River, visiting some key places close to Santa Fe City.

The Paraná basin acquired the present day geographic configuration since the Late Tertiary, after suffering an important marine transgression that penetrated on South America from Argentina to Bolivia along the Paraná valley and the Chaco-Pampa plain. We will visit some important outcrops of Late Tertiary and Quaternary marine and fluvial sediments on the Paraná River banks discussing the evolution of the system since that time. Additionally we will concentrate on the Late Pleistocene history of the region and the fluvial response to climatic changes of the Late Pleistocene-Holocene.

Given the fact that the RCEM focuses on morphodynamics, we will concentrate on the present features of the the Paraná River floodplain. We will discuss the morpho-sedimentologic units of the floodplain and the mechanisms of sand bars and island generation, morphologic historical changes of the channel and general hydrologic and sediment transport information.

**Program:** Depart by bus from Santa Fe in September 26 at 7:00 AM. We will take a boat at Entre Rios Province, and we will navigate along the Paraná River till near 5:00 PM, returning to Santa Fe.

**Cost of the field trip:** 80 US dollars

**Available vacancies:** minimum of 6 and maximum of 10 participants

**Leaders/guides:** Carlos. G. Ramonell and Edgardo M. Latrubesse